A Collection of Best Practices of
Managed Care Organizations

The results of a survey by the
Health Care Financing Administration
Office of Managed Care

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INTRODUCTION

The Division of Policy and Evaluation (DP&E) of the newly recombined Office of Managed Care within the Health Care Financing Administration (HCFA) is charged as one of its responsibilities to evaluate managed care program activities as a source of improvements and enhanced managed care options and policies for HCFA beneficiaries. DP&E included in its FY94 Evaluation Work Plan a survey of best practices of managed care organizations.

Planning for the survey of best practices began in June, 1993, and the managed care organizations targeted for inclusion in the survey were first contacted in August, 1993. The last of the survey results were received in March, 1994.

DP&E is grateful to all those persons in HCFA, other federal agencies and the managed care field who provided initial encouragement and guidance for the survey. Special thanks are extended to GHAA for the support of its extensive library services and the early consultation of its staff. DP&E is especially grateful to the managed care organizations and their staff members who were burdened with describing one or more of their practices as part of their voluntary participation in the survey.

DP&E hopes these survey results promote the sharing of information about leading edge practices among managed care organizations. However, HCFA's publication of these practices does not represent its official endorsement of them or its rejection of other activities and practices not being reported. HCFA will consider the directions and strengths reflected in these activities in developing its policies and practices regarding managed care organizations. Hopefully, MCOs themselves will learn something from the activities reported. Any value of the survey and its many weaknesses should also stimulate additional, more extensive and rigorous studies of best practices among managed care organizations.

Additional information about the survey may be obtained from DP&E at 202-205-0553 (Tel) or 202-205-9522 (Fax).

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OVERVIEW

To Identify... "Best Practices"

The Division of Policy and Evaluation (DP&E) of the Health Care Financing Administration (HCFA) mounted this study to identify, document and disseminate some of those practices of some managed care organizations (MCOs) that knowledgeable observers judge to be especially effective or "best practices." MCOs were broadly defined as organizations that integrate the financing and delivery of health care. The design of the study is described in Appendix A.

Broad Scope-- Not Just Medicare, Medicaid

Although part of a HCFA study, MCOs were broadly construed to include both health plans that were not and those that were federally qualified or under a cost- or risk-based contract with HCFA. They also included any other delivery or payor organizations engaged in any aspects of managing care (payment arrangements, provider networks, review of clinical services, etc.) such as an insurer operating a managed indemnity program.

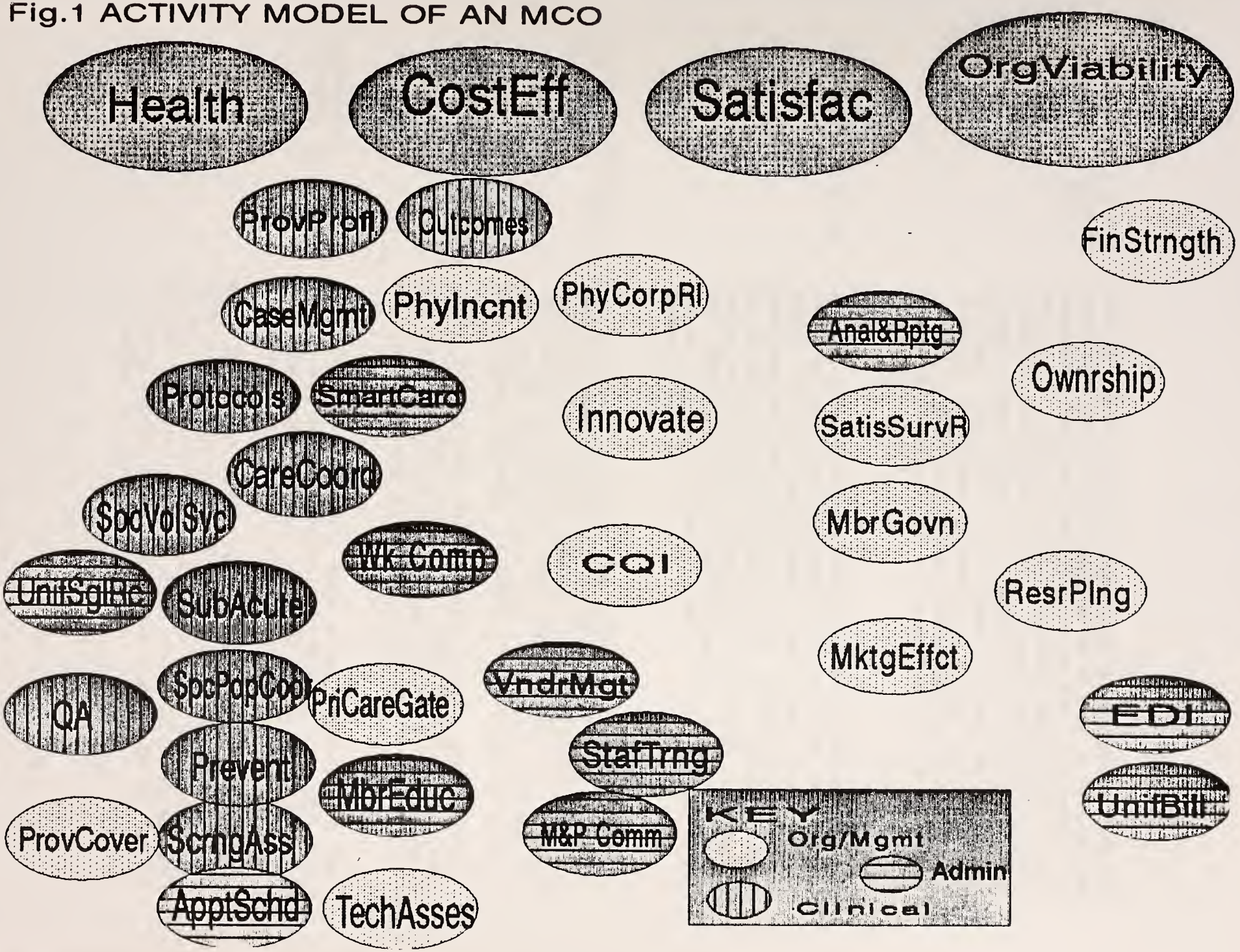
Nevertheless, 7 of the 8 MCOs reporting Best Practices for this study (Participating MCOs) have Section 1876 (cost or risk) contracts with HCFA and all but ## are Federally Qualified HMOs under Title 13 of the Social Security Act.

35-Activities Model of an MCO

A simple model of a managed care organization was developed which includes 35 activities clustered into three categories--Organizational and Managerial, Clinical, and Administrative activities. (See Figure 1).

As the MCO Activities Model depicts, the viability of a managed care organization in its fullest form is dependent on its providing the most appropriate health care services in a cost effective manner that results in both optimal clinical outcomes and satisfied members and providers. It is also dependent on administrative support and managerial strength that ensure a strong market presence and the financially and strategically sound operating base for such services.

Fig.1 ACTIVITY MODEL OF AN MCO



43 Industry Knowledgeable Sources Identified MCOs

Forty-three persons knowledgeable about health care and especially managed care from a variety of perspectives including government, national and regional industry associations, employers, university faculties, think tanks, and other settings, were used as sources to identify MCOs engaged in best practices. They were asked through telephone interviews about the study to identify MCOs which they believed or sensed were carrying out one or more MCO model activities especially well.

18 Targeted MCOs

Thirty-two MCOs (the Sources' Pool) were identified by the knowledgeable Sources as being engaged in one or more best practices. To contain the size of the study, 18 MCOs judged by DP&E to be broadly representative of the Sources' Pool based on activity, organizational type, location, and federal program participation were targeted to be invited to participate in the survey (the Target Group).

8 Participating MCOs--Only A Subset

Eight of the 18 MCOs targeted to be invited to participate actually participated. Two MCOs declined and 4 MCOs agreed to participate but did not carry through on their commitment. Another 4 MCOs from the Source's Pool were not invited to participate because of DP&E's time constraints.

Thus, the survey only reports on an unscientifically determined subset of Best Practices. The Best Practices of many MCOs in the Sources' Pool are not reported in this survey.

Widespread Interest in Survey

All Sources initially expressed interest in the survey and in the potential value of its results, and they encouraged its continuation and the distribution of its final report.

Most CEOs and other representatives of Targeted MCOs contacted by DP&E expressed support for the study. Only two MCOs actually rejected the invitation to participate. Four other MCOs chose not to participate by procrastinating or being "unavailable" for months.

10 Activities Described

Ten of the MCO Model Activities (see Figure 3) are described. Six of those activities are described for two or more MCOs. Seven of the 10 activities described are in the Clinical Category, two are Organizational and Managerial, and one is classified as an Administrative Activity.

Operationally Oriented Reporting

All Best Practices are reported in the same format using an outline that emphasizes the value of the approach to the activity and analyzes what makes it work for the MCO in terms intended to be responsive to the interests of CEOs, COOs and Medical Directors of other MCOs. Each outline of an MCO's Best Practice includes such topics as notable results, critical success factors and lessons learned, and most include cost information.

RESULTS

Widespread Value Oriented Efforts

This small sample of MCO activity reflects considerable efforts by MCOs nationwide to operate their organizations effectively and efficiently.

Total Quality Management programs are well established in some MCOs.

An intense focus on MCO clinical performance and attention to value are reflected in the descriptions of Technology Assessment, Physician Profiling, Case Management, and Outcomes Measurement activities.

Critical Physician Involvement

The importance of the early and active participation of physicians to the success of innovative clinical and medical management efforts is reflected in many of the reports of Best Practices. Similarly, highly participative approaches to dealing with change are commonly reported too.

Financial and Other Benefits

Some MCOs report substantial financial benefits from their best practice activities while others report benefits not yet quantifiable.

Outcomes Data Being Applied	Some MCOs are applying data-based outcomes measurements to select and to differentially pay providers.
Prevention Can Work	One health plan shows that an MCO is an effective delivery system in providing a well managed prevention program--both screening and risky lifestyle identification--and still be financially sound.
MCOs Well Beyond Utilization Review	MCOs continue to enhance utilization management efforts through a variety of advances including basing such programs in decentralized physician groups, exploring case-mix severity adjustments, profiling provider practice patterns, and measuring performance through clinical indicators and clinical outcomes.
Far Reaching Information System Enhancements	Artificial intelligence is being successfully applied to claims screening and adjudication, and information networks are linking providers community wide with interactive claims, clinical and administrative capabilities.
SHMOs Continue to Work Well	The operating results of one SHMO (HMO for Medicare beneficiaries plus drug, preventive dental and community-based long-term care) continue to show that SHMOs can save state funds, satisfy beneficiaries, and produce more appropriate care using the same resources.

SURVEY PROFILES

PROFILE OF SURVEY PARTICIPANTS

OVERVIEW

Sources--Knowledgeable persons who identified MCOs engaged in a best practice

Sources' Pool of MCOs--All the MCOs identified by the Sources

Targeted MCOs--MCOs in the Sources' Pool invited by DP&E to participate in the survey

Participating MCOs--MCOs that participated in the survey by describing their best-practice activity

SOURCES

MCOs were targeted for possible inclusion in this survey of best practices through the recommendations of a large and varied group of professionals highly knowledgeable about the field of managed care.

More than forty individuals were contacted who were affiliated with units within HCFA's Central Offices and its Regional Offices, other government agencies, professional and industry associations, academic institutions, consultants, evaluators, and employers.

Accrediting organizations (NCQA, JCAHO, etc.) were not used as the sources to target the survey to preclude its being limited to those MCOs subject to formal accreditation and its having to deal with acceptable rather than best practices.

A complete list of the individuals contacted as sources to identify MCOs for the survey is included as Table 1.

Recommendations about which MCOs and activities to include were obtained through telephone conversations. These conversations were supported by faxed materials providing a brief description of the background and nature of the survey (Appendixes B and C) and a model of the activities of an MCO (Figure 1).

Table 1.

SOURCES CONTACTED TO TARGET MCOS WITH BEST PRACTICES

INDIVIDUAL	ORGANIZATION
Ann Marie Walsh	American Association of Preferred Preferred Provider Organizations (AAPPO)
Brent Miller	American Group Practice Association (AGPA)
Susan Tate Marc Rogers	American Managed Care Research Association (AMCRA)
Stephen Wood	Blue Cross Blue Shield Association
Peter Fox	Consultant
Kathleen Angel	Digital Equipment Corporation
Sue Palsbo Pamela Middelstadt Teresa Fama Lea Lough	Group Health Association of America (GHAA)
Leslie Aronovitz	Government Accounting Office
Various	Health Care Financing Admin.(HCFA) Office of Managed Care Office of Coordinated Care Policy and Planning Office of Prepaid Health Plans Operations and Oversight
	HCFA/Office of Research and Demonstrations (ORD)
	HCFA/Regional Offices--Managed Care Coordinators
Carol Cronin	Managed Health Care Association
Morris Melloy	National Association of Insurance Commissioners (NAIC)
Connie Forster	Officer of National Association of Managed Care Regulators
Karl Polzer	National Health Policy Forum
Sean Sullivan	National Business Coalition Forum on Health
Andy Kramer	University of Colorado
Rich Lichtenstein	University of Michigan
Mark Pauly	The Wharton School, University of Pennsylvania
Pete Welch	The Urban Institute
Karen Milgate	Washington Business Group on Health
Ed Porcaro	Consultant
Helen Darling	Xerox Corporation

SOURCES' POOL of MCOs

The Sources recommended 32 MCOs (the Sources Pool) for inclusion in the survey. A list of all MCOs identified by the Sources is included as Table 2.

The distribution of MCO activities cited as best practices among the MCOs identified by the Sources is depicted in Figure 2. Twelve MCOs were identified as having one best-practice activity with an additional 6 MCOs cited as having two best-practice activities. At the other extreme, four MCOs were cited as having eight best practice activities and one MCO had nine activities cited as best practices.

TARGETED MCOs

To match the scope of the survey to the time and effort available to DP&E for the study, DP&E selected 18 MCOs from the Sources' Pool to be invited to participate in the survey.

These Targeted MCOs were chosen to be somewhat representative of the activities identified as best practices and the model or type, the location, federal qualification status, and Medicare contracting status of the MCOs in the Sources' Pool.

DP&E selected three MCOs to be site visited to test its survey elements and to engage in some in-depth explorations of a sample of best practice activities. DP&E selected the Minneapolis area for the site visit because of its active managed care market. DP&E targeted Health Partners, United HealthCare and Blue Cross Blue Shield of Minnesota as the MCOs within the Minneapolis market to be visited. All three MCOs kindly agreed to participate and extended an invitation to DP&E to visit.

PARTICIPATING MCOs

Eight MCOs actually participated in the survey. Six of the Targeted MCOs did not participate. Two Targeted MCOs declined the invitation to participate. Four other Targeted MCOs agreed to participate but procrastinated, were repeatedly unavailable, etc.

A list of all Participating MCOs is included as Table 3.

Table 2.

MCOs IDENTIFIED BY SOURCES (SOURCES POOL)

MCOs	ACTIVE CLASS	MODEL	STATE/ REGION	FEDERALLY QUALIFIED	MEDICARE CONTRACT
Av-Med	Source Pool	IPA	FL/IV	FQ	R
BayPacific-Aetna	Source Pool	IPA	CA/IX	FQ	R
BlueCross/Shield-MN	Participant	IPA	NY/I	FQ	C
BlueCross/Shield-Rchstr	Participant	IPA	NY/II	--	C
Cigna HlthCare-AZ	Participant	Staff	AZ/IX	FQ	R
CappCare	Source Pool	PPO	36 states	--	-
ColumbiaMedPlan	Source Pool	Staff	MD/III	FQ	-
Comprecare	Source Pool	IPA	CO/VIII	FQ	-
ConnectiCare	P/Unavail	IPA	CT/I	FQ	-
Fallon	P/Unavail	Grp	MA/I	FQ	R
FHP, Inc.	P/Unavail	IPA/Staff/Grp	CA,AZ,NV,NM,UT+	FQ	R,HCPP
Greater Atlantic	T/Declined	Grp	PA,NJ/II,III	FQ	R
Grp Health Pug Sound	P/Unavail	Staff/Net	WA/X	--	R
Harvard Comm HP	Participant	Staff/Grp	MA/I	FQ	R,C
HealthAmerica of Pitts.	Participant	IPA/S/G	PA/III	FQ	-
Health Care Plan	Source Pool	Staff	NY/II	FQ	R
Health Net	Source Pool	Net	CA/IX	FQ	R
Health Partners	Participant	Stf/Grp/Net	MN/V	FQ	R
Health Source (NH)	Source Pool	IPA	NH, MA/I	FQ	-
Humana	Source Pool	IPA/Stf/Grp/Nt	Various	FQ	R
Kaiser	Targeted	Grp	Various	FQ	R,HCPP
Lovelace	T/Declined	Grp	NM/VI	FQ	-
MD-IPA	Source Pool	IPA	MD,DC,VA/III	FQ	-
PacificCare	Targeted	Net	CA,TX,OK,OR,WA	FQ	R
Pilgrim	Source Pool	IPA	MA.RI/I	FQ	-
Prudential	Participant	IPA/Grp	Various	FQ	R
QualMed	Targeted	IPA/Net	CO,OR,WA,NM,CA	FQ	R,C
Sanus (NY)	Source Pool	IPA	NY,NJ/II	FQ	R
TakeCare	Source Pool	IPA/Net	CA,CO,OH,IL,IN	FQ	R
Tufts	Source Pool	IPA	MA/I	FQ	-
United HealthCare/Medica	Participant	IPA/Grp	Various	--	R,C,HCPP
US Healthcare	Targeted	IPA	Various	FQ	R

Table 2. Continued

MCOs IDENTIFIED BY SOURCES (SOURCES POOL)

KEY

ACTIVE CLASS

Source Pool--Identified by Sources (knowledgeable persons in the managed care field)
Targeted--Selected by HCFA/OMC/DP&E to be invited to participate
T/Declined--Declined invitation to participate
P/Unavailable--Agreed to participate but did not
Participant--Fully active in study and completed Outline of Best Practice

MODEL

IPA--An organized prepaid healthcare system that contracts directly with physicians or associations of physicians in independent practice but predominantly organized around solo/single specialty practices
STF--An organized prepaid healthcare system that delivers health services through a salaried physician group
GRP--An organized prepaid healthcare system that contracts with one independent group practice
NET--An organized prepaid healthcare system that contracts with two or more independent group practices

REGION

One of the ten regional offices of the Department of Health and Human Services

FEDERALLY QUALIFIED

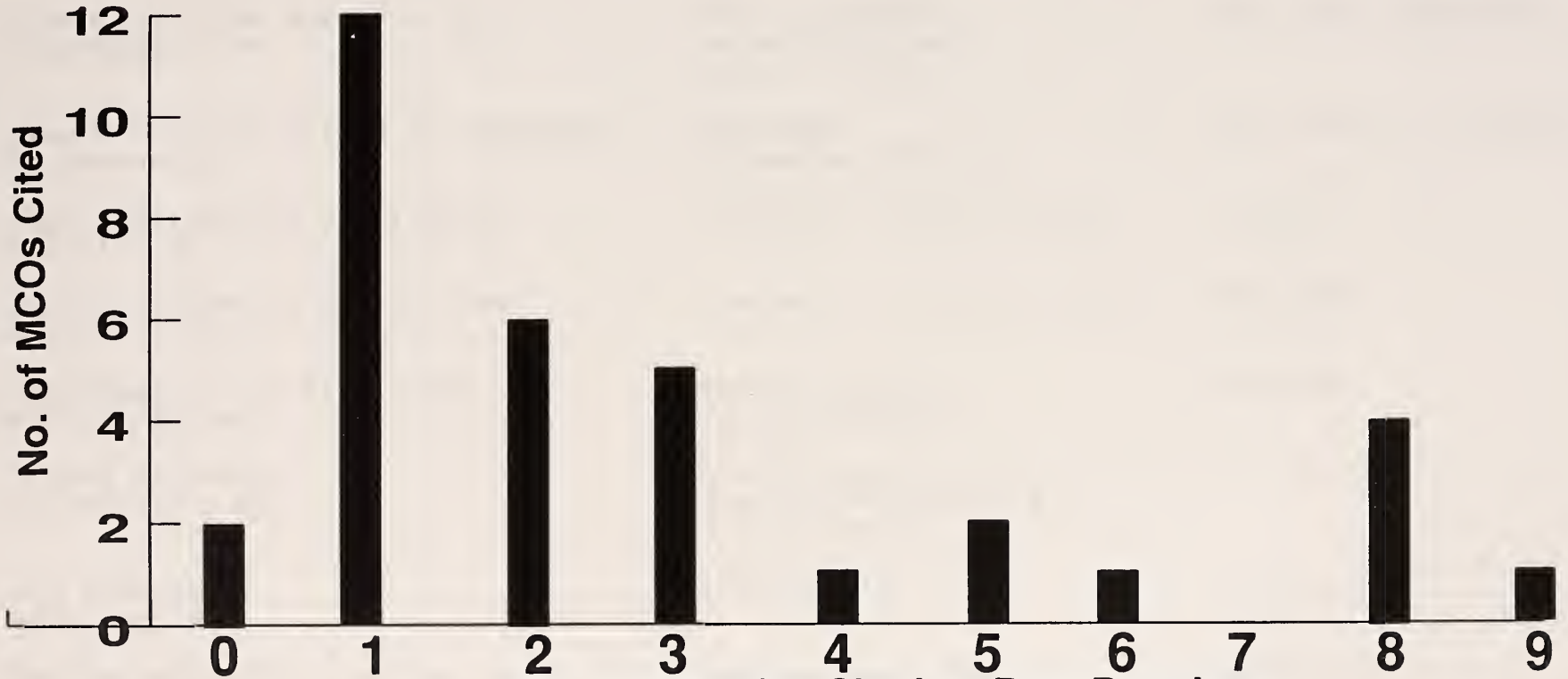
Meets the requirements of Tttle XIII of the Social Security Act for a Health Maintenance Organization as administrered by HCFA

MEDICARE CONTRACT

Risk--The HMO has a contract with HCFA under SSA Title 18, Section 1876, whereby the HMO is at risk and is capitated at 95% of the projected fee-for-service costs for Part A and Part B Medicare services.
Cost--The HMO has a contract with HCFA under SSA Title 18, Section 1876, whereby the HMO is retroactively paid the cost of Part A and Part B Medicare services.
HCPP--The HMO has a contract with HCFA under SSA Title 18, Section 1833, whereby the HMO is retroactively paid Part B costs. The contract does not include Part A services.

Figure 2.

NUMBER OF ACTIVITIES CITED AS BEST PRACTICES FOR EACH MCO IDENTIFIED BY SOURCES



MCOs Cited									
TakeCare CappCare	Aetna-BP CIGNA-AZ CompreCare CT-Care HealthCare HlthNet HlthSrc Humana MD-IPA PruCare Qual-Med SANUS-NY	AvMed BlueCGSRch ColMedPln Kaiser-CT Pilgrim Tufts	BlueCBSMN Fallon GrtrAtl HlthAM Lovelace	Kaiser-SCal	FHP GrpHlthPS	Harvard		HlthPartners PacifiCare United HlthCare	Kaiser: N CA S CA,

Table 3.

PARTICIPATING MCOS AND CONTACTS

MCO	Contact/Liaison for Survey	HMO Enrollment 12/31/92*
Blue Cross Blue Shield of MN Minneapolis, MN	Debra Carpenter Bruce Hutchinson Jerry Fruetel	Blue Plus: 180,000+
Blue Cross Blue Shield of Rochester Rochester, NY	Mary Lane Katherine Hiltunen	Blue Choice: 375,000+
Cigna Health Care of Arizona Phoenix, AZ	Clifford J. Harris, M.D.	71,000+
Harvard Community Health Plan Brookline, MA	Lawrence K. Gottlieb, M.D.	448,000+
HealthAmerica of Pittsburgh Pittsburgh, PA	Robert Mientus Kathy Kunselman	166,000+
Health Partners Minneapolis, MN	Gordon Mosser, M.D. Tom Von Sternberg, M.D. Jeanne Ripley	582,000+
The Prudential Roseland, NJ	Fran Hopkins	1,253,000+
United HealthCare Corporation Minneapolis, MN	Lee Newcomer, M.D. Sheila Leatherman Bobbie Kopyar Dave Williams	1,705,000+

*From 1993 GHAA HMO Directory

PROFILE OF BEST PRACTICE ACTIVITIES

ACTIVITIES CITED AS BEST PRACTICES

The model of MCO activities used for the survey includes 36 activities grouped as follows:

ACTIVITY GROUPS	NUMBER OF ACTIVITIES IN MCO MODEL	NUMBER OF CITATIONS BY SOURCES
Organizational and Managerial	13	25
Clinical	11	54
Administrative	11	19

Each activity was defined and assigned a brief title for inclusion in the MCO Activities Model (Figure 1). An alphabetical listing of the titles of the MCO activities and their meanings is included as Appendix C.

Clinical Activities were cited most frequently by the Sources and Quality Assurance was the specific activity cited most often (11 citations). The activity's broad definition and the industry focus on the subject probably contributed to its frequent citing.

The next two most frequently cited activities were Clinical Activities also--Outcomes Analysis (10 citations) and Coordination of Services for Specialty Populations (9 citations). Continuous Quality Improvement, an Organizational and Managerial Activity, was cited seven times.

In contrast, four Organization and Management Activities were not cited at all--Physician Corporate Role, Provider Coverage, Satisfaction Surveying, and Ownership. Four Administrative Activities--Uniform Billing, Smart Card Applications, and Staff Training and Member Education--also were not cited.

The frequency with which Sources cited each MCO activity as a Best Practice is presented in Figure 3.

Figure 3.

FREQUENCY OF ACTIVITIES CITED AS BEST PRACTICES

MCO Activity	# of MCOs	Number of MCOs Cited for Activity as Best Practice
		1 2 3 4 5 6 7 8 9 10 11
ORGANIZATION AND MANAGEMENT		
Continuous Quality Improvement	7	═══════
Financial Strength	2	═══
Innovation	3	═══
Marketing Effectiveness	3	═══
Member Governance	1	═
Ownership	0	
Physician Incentives	4	═══
Physicians' Corporate Role	0	
Primary Care Gate Keeper	1	═
Provider Coverage	0	
Resource Planning	2	═══
Satisfaction Survey	0	
Technology Assessment	2	═══
CLINICAL		
Care Coordination	1	═
Case Management	5	═══
Outcomes Measurement	10	═══
Prevention	3	═══
Protocol Application	4	═══
Provider Coverage	0	
Provider Profiling	5	═══
Quality Assurance	11	═══
Screening and Assessment	5	═══
Social and Volunteer Services	1	═
Special Population Coordination	9	═══
Sub-Acute Care	0	
ADMINISTRATION		
Analysis and Reporting	4	═══
Appointment Scheduling	1	═
Electronic Data Interchange	2	═══
Member and Provider Communication	3	═══
Member Education	0	
Smart Cards	0	
Staff Training	0	
Unified Single Record	4	═══
Uniform Billing	0	
Vendor Supply Management	2	═══
Workers' Compensation	3	═══

SURVEY RESULTS

OUTLINE OF MCO BEST PRACTICES

DP&E's selection and survey of MCO best practices resulted in the following reports of 10 activities underway at 8 MCOs.

Other MCOs were identified by the Sources as being engaged in activities that also could be considered best practices. They are not included here only because they chose not to participate in the survey or because of the limitations on DP&E's time and effort available for this study. The activities that are described are not ranked or rated in any way. They also have not been judged by DP&E to be better than other activities under way at other MCOs that are not being reported.

Each MCO activity is described through the following four-part outline to make the survey results operationally useful to both HCFA and MCOs:

VALUE / OUTCOME / IMPACT
- Objectives
- Notable Results

DESCRIPTION
- Key Elements
- Organization
- Processes
- Policies
- Participants
- Resources
- Products
- Data Used and Produced

ANALYSIS
- Distinguishing Features
- Critical Success Factors
- Key Result Areas
- Unique Conditions
- Lessons Learned
- Cautions

COSTS
- Time
- Money
- Other

SOME MCO BEST PRACTICES

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Case Management

MCO Blue Cross Blue Shield of the Rochester Area

VALUE / OUTCOME / IMPACT

OBJECTIVES

Blue Cross Blue Shield of the Rochester Area (BCBSRA) is pursuing its case management activities to reduce the cost of care rendered to its members with high cost and complicated medical service needs and to improve the quality of their lives.

NOTABLE RESULTS

BCBSRA has realized annual net savings of approximately $8,000,000 from its case management program during 1991 and 1992, and indications are that the same level of cost savings will be realized again in 1993.

The case management program is a source of valued assistance to providers confronting difficult cases.

BCBSRA case managers have had a positive impact on the community as the "caring arm" of BCBSRA, and the case managers are viewed by agencies and support groups as experts.

BCBSRA case managers assist BCBSRA employees with their own family health problems.

DESCRIPTION

KEY ELEMENTS

The BCBSRA case management program focuses on early identification of subscribers and members who are considered at high risk for high cost and complicated health services.

The same case management program is applied to all 700,000+ BCBSRA HMO members and all other subscribers.

BCBSRA has been conducting its case management activities since 1988 when it focused on just mental health, head injury and HIV+/AIDS cases.

The BCBSRA Family Focus program makes a case management social worker available to BCBSRA employees for assistance with their elderly relatives. BCBSRA staff continuously refer cases to the program.

Education is an important part of the case management program. It is targeted to those who could refer patients to the program. It focuses on the advantages of case management and on the process to get a subscriber or member into the case management program. The education includes at least annual visits and updates for both the internal and community audiences.

ORGANIZATION

The Case Management Unit is part of the Medical Affairs Department and reports to the Corporate Medical Director. The Department Director and Unit Manager are RNs and the staff are primarily RNs with Community Health background. The staff consists of 9 case managers including a Social Worker who is invaluable in addressing the social needs of all cases.

PROCESS

The case management activities are targeted at specific clinical areas (specialty programs):

HIV+/AIDS
High Risk Pregnancies
Chronically Ill Children
Head Injury/Spinal Cord Injury
Transplants
Cardiopulmonary Disease, primarily Chronic Obstructive Pulmonary Disease
Asthma
Cancer (Non-Hospice Eligible)
Over 65 (HMO members only)
Other Catastrophic Diseases (15% of caseload)
Mental Health/Substance Abuse

Program participants are identified in various ways by: member self-referral, pre-certification nurses upon admission to the hospital, discharge planners, and the case managers themselves through on-site case review at hospitals. In such instances, cases are identified primarily by diagnosis or hospital readmission pattern. Internal BCBSRA staff, such as member phone-representatives, Medical Directors, marketing staff and utilization review staff, also refer cases.

On-site case screening at hospitals is conducted by a separate Utilization Review Unit which also identifies members for case management as part of their concurrent review activities.

POLICIES

BCBSRA's case management activities are aimed at reducing inpatient hospitalization. Current policy requires that a new

area for case management must be able to produce an annual cost savings ratio of at least 6:1 ($6 savings for every $1 of program cost).

Cost are based on services utilized and savings are conservatively based on preventing a hospital admission. For example, if a member had 6 admissions in 1993 and with case management had only one admission in 1994, the case manager is allowed to use the cost savings of only one hospital admission as the savings comparison for the plan of care.

Each specialty program area is being evaluated for its impact on the quality of life, and future expansions of the case management program will likely be justified on that basis as well.

PARTICIPANTS

The staff of the Case Management Unit are the key participants in program development and implementation and in the ongoing monitoring of the specialty caseloads. The case managers are also key participants in community service planning in their specialty areas and are important resources to community agencies. For example, the AIDS case managers are members of the community planning group evaluating the availability of resources for AIDS patients, and one of them presented a professional paper at the recent International AIDS Conference.

The Medical Directors consult with case managers on difficult cases and in program planning. They also work with case managers to develop plans of care which are outside the benefits package.

RESOURCES/PRODUCTIVITY

Case manager case loads range as high as 150 cases (subscribers/members), but can be as low as 40 cases due to the nature and complexity of the cases. Work is underway to identify severity indicators that account for case load differences. A pilot project is being planned and its elements are being identified.

PRODUCTS

The case management program produces care plans and computerized cost savings reports. Computer assisted plans of care are not used or produced.

DATA USED/PRODUCED

Data on high cost, high volume hospital admissions were used to determine areas for the application of case management.

Cost savings are calculated monthly by each case manager using a cost savings report.

ANALYSIS

DISTINGUISHING FEATURES

All but one case manager specialize in specific clinical areas rather than generalizing and managing any type of case.

CRITICAL SUCCESS FACTORS

BCBSRA hires RNs with community health experience, so they know about alternative resources from the beginning. It avoids using nurses who still have any interest in hands-on care rather than coordinating services.

KEY RESULT AREAS

Direct Cost Savings--Cost savings are the basis for program evaluation. Operational costs are calculated quarterly by the finance department and subtracted from specialty cost savings calculated monthly by case managers.

Indirect Cost Savings--By referring cases to the Case Management Unit other less specialized staff save time and contribute to better overall results. Cases and assignments being managed by the Unit are listed on the BCBSRA computer-based internal communication system to ease other staffs' contacting the appropriate case manager.

Staff Retention--By specializing in clinical areas, each case manager is seen as an expert in their specialty, participates on community and statewide committees, and develops strong ownership and a sense of responsibility for their program. Since the program started in 1988 only two case managers have left during their probationary period and one left to take a promotion.

Cost Effective Services--Each case manager is empowered to develop alternative plans of care which can be outside the subscriber's or member's health benefit package if the plan is cost effective. A case manager prepares an extra-contractual agreement which is signed by the subscriber or member to cover such "outside" care. The agreement defines and limits the extra-contractual benefit and allows regular review of the plan of care.

UNIQUE CONDITIONS

In NY State, hospitals are reimbursed based on DRGs for all services except a few exempt units including mental health.

Consequently, case management gains nothing from the cost perspective by reducing hospital lengths of stay; hospital admissions must be avoided to save costs. Under such circumstances, the potential significance of introducing quality of life measures as an ingredient of program evaluation is even greater.

LESSONS LEARNED

Initial or periodic on-site case review at hospitals by case managers can help hospital discharge planners and other staff understand the case management program.

CAUTIONS

Ensure the program uses a sound cost savings methodology. Use a financial consultant to help develop it, and have an independent audit conducted after one to two years to reconfirm its soundness and consistency.

Take time to build solid expertise.

Do not assume that the case managers are all making the same interpretations. For example, differences will arise regarding case load and the interpretation of an active case. Audits (peer or supervisory) conducted several times a year proved to be the only way to ensure consistency.

DEVELOPMENT PLANS

BCBSRA is developing plans for possible implementation in 1995 to expand its case management activity in targeted areas such as Diabetes and Asthma by focusing on outpatient services.

An initiative to develop a quality of life measure for each specialty program area is being considered as a means to evaluate the impact of case management beyond cost savings. For example, the Rand 36-item Health Survey is being used for the Diabetes Education Program and may be applicable for other areas. Patient satisfaction surveys may be introduced. BCBSRA will use such new information to identify areas for quality improvement.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Case Mix Severity Adjustment

MCO Blue Cross Blue Shield of the Rochester Area

VALUE / OUTCOME / IMPACT

OBJECTIVES

Blue Cross Blue Shield of the Rochester Area (BCBSRA) is seeking to measure and influence the appropriateness of medical resource utilization. By selecting, piloting and incorporating a case-mix severity adjustment methodology through its HMO, Blue Choice, BCBSRA will improve its budgeting and guide the utilization review and quality improvement efforts of its providers.

NOTABLE RESULTS

Through the application of the Ambulatory Care Groups (ACG), a case mix severity adjustment methodology developed by The Johns Hopkins University, BCBSRA has measured differences in costs expected by its group model health plan in serving its unique older and sicker member population. Consequently, BCBSRA has established a more realistic operating budget for Blue Choice. It also has begun adjusting utilization targets to reflect the member population (case mix) and thereby assist Blue Choice to focus its utilization review efforts.

DESCRIPTION

KEY ELEMENTS

Case mix adjusters are analytical packages that assign measures of severity to a population based on characteristics of the population associated with the extent and nature of illness and injury. These measures of severity are then used to adjust estimates of the resources needed to care for a given population or utilization norms calculated through multivariate analysis or other statistical methods.

BCBSRA is piloting an application of the Ambulatory Care Groups (ACG) from CSC Healthcare Systems and developed by The Johns Hopkins University with financial support initially from the DHHS Agency for Health Care Policy and Research and currently from HCFA. It uses claims and administrative data and age, sex and ICD-9 codes in the adjustment process.

BCBSRA selected the ACG case-mix severity adjuster from among those adjusters that can be applied to available billing and associated administrative information. Another general approach to case-mix adjustment uses chart reviews to produce

more accurate results by using more detailed medical record and case findings. However, it is also much more time consuming and expensive than those that use billing and administrative data.

Other case-mix adjusters using billing and administrative data include:

Diagnostic Clusters--from the University of Washington.

Ambulatory Visit Groups (AVG)--from Yale U.

Ambulatory Patient Groups (APG)--from 3M Corporation funded also by HCFA and developed by Yale U.

Products of Ambulatory Care (PAC)--from New York State Department of Health.

All of the adjusters are similar in construction to the DRG case-mix adjustment used for inpatient care, but each uses a different diagnostic approach.

ACG is the only one of the five methods designed to adjust a physician's entire caseload. It also is the only method that can be used at the population level. It was validated through application to several large data bases, including the entire state of Maryland Medicaid data base, and it has a user-friendly reputation.

ORGANIZATION

BCBSRA formed an ACG Adjustment Task Force with several members of the Corporate Utilization Analysis unit (CUA) of BCBSRA. The Task Force developed the logical framework and addressed the implementation details for the application of ACG. Dr. Jonathan Weiner and his staff at The Johns Hopkins University answered questions and guided the correct application of ACG.

PROCESS

ACG is applied to claims which have been aggregated by patient, and it assigns each patient to an ACG severity group. The sample to be measured, a physician's caseload or the entire delivery system for example, is selected. An expected cost or utilization level is calculated using ACG and compared to actual performance.

POLICIES

No formal policies have yet been developed regarding the use or interpretation of ACG results. BCBSRA is continuing the pilot to identify how best to use ACG.

PARTICIPANTS

The main participants applying ACG are the BCBSRA Corporate Analysis Department, BCBSRA Finance, and the management of the delivery system being analyzed.

RESOURCES

Besides purchasing the ACG package from CSC Healthcare Systems, at least two staff must be trained in its application and one of them should have graduate level course work and experience in regression theory.

DATA

Both claims data and membership data are needed to successfully apply ACG.

ANALYSIS

DISTINGUISHING FEATURES

ACG has two unique features. ACG allows adjustment of entire patient populations not just a visit-by-visit adjustment. Unlike other case-mix adjuster packages developed in a proprietary fashion, ACG has no "black box" problem; the results are completely explainable. ACG is dissectible, and a patient can be tracked understandably from start to ACG assignment. The complete mapping of a patient's process through the analytical package can be done for a skeptic user.

CRITICAL SUCCESS FACTORS

Physician buy-in is crucial, and the ability to fully explain the analytical process underpinning the ACG process helps earn this buy-in.

All involved with ACG must understand how the package works. Staff must be available to walk through examples and to meet individually with those concerned.

KEY RESULT AREAS

The application of ACG helps BCBSRA focus on variations in resource utilization that are not due to patient characteristics but instead to characteristics of practicing style which can be adjusted. BCBSRA can also financially plan more accurately because of ACG.

LESSONS LEARNED

All who are involved in using ACG reports (finance, clinical groups, management groups, etc.) must be well trained to interpret and apply the results.

Prior to the use of ACG, BCBSRA was aware of the older case mix served by its group model plan. Greater resource use was expected based just on the age and sex of the population. By using ACG, a higher resource use was quantified (higher than expected based on age and sex alone), and a more realistic budget was prepared.

CAUTIONS

ACG should be presented as a useful but not a perfect tool. It only explains approximately 40% of the variation in health resource utilization. It should not be automatically assumed that the remainder of the variation is due to practice style alone. Instead, only a part of the unexplained variation may be due to differences in practice style.

COST ESTIMATES

Significant computer space may be needed, depending on the size of the plan, to group the patients and create the normative utilization levels.

ACG is available through CSC Healthcare Systems with a variety of pricing options that depend on the use the plan will make of it. Generally, the price increases with the size of the plan.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Continuous Quality Improvement

MCO Harvard Community Health Plan

VALUE / OUTCOME / IMPACT

OBJECTIVES

Harvard Community Health Plan (HCHP) views Quality Management as a vehicle for accomplishing its strategic objectives. HCHP is focused on achieving continuous improvements in: medical care, service to members and employers, staff satisfaction and abilities, organizational processes and management support, and competitive cost position.

NOTABLE RESULTS

Quality Management activities have created a measurement and reporting system that includes key success measures for strategic objectives and their five-year annual targets. The HCHP Executive Committee reviews progress towards these objectives as the first agenda item of every meeting and initiates new and follow-up actions.

Three of these key measures are linked to HCHP's all-staff Bonus Plan and executive compensation. They include cost as well as member satisfaction with medical care and overall service.

DESCRIPTION

KEY ELEMENTS

HCHP departments, teams and individuals use the DARE problem solving cycle--Define, Assess, Respond, and Establish.

- Define--
  - Verify customer needs and concerns
  - Commit to priority objectives
- Assess--
  - Define and measure the current process
  - Identify opportunities for change
- Respond--
  - Plan improvement and gain commitment
  - Try it and evaluate
- Establish--
  - Make the improvement routine
  - Monitor over time and share feedback

A Quality Consulting and Training Group focuses on assisting line management and staff in their efforts to improve quality and to accomplish HCHP's strategic objectives. The Group

operates as a driving force behind continuous improvement through the application of TQM principles.

The Group is the result of the merger of departments of Quality Management, Systems/Industrial Engineering Training (for management and staff), Clinical Training, and Educational Information and Operations.

The Group measures its success and contribution through:

- Results directly contributing to HCHP's strategic goals.
- Resolution of customer needs and concerns.
- Customer satisfaction.
- Staff satisfaction and commitment.
- Favorable budget variances.

The HCHP Executive Committee and local management teams work to ensure well developed and appropriately oriented management support systems to underpin successful quality management by the clinical and customer-account teams. Such management support systems include:

Leadership--
Clear organizational direction and visible commitment to it.

Culture--
Organizational values, beliefs, patterns of behavior and norms supporting the vision.

Communication--
Staff understand the direction, progress, and their roles through continuous two-way feedback.

Performance Management, Reward and Recognition--
Staff feel valued and are visibly recognized, rewarded and developed.

Training and Development--
Staff can grow and have necessary skills.

Customer Focus--
Customers' needs and concerns are clearly articulated at every level to drive service design.

Structure--
Organizational configurations support the accomplishment of the vision.

Supplier Management--
Supplier relationships contribute to achieving vision.

Methods, Standards and Tools--
Appropriate to vision.

Business Planning--
Resources are identified, developed and deployed to achieve the vision.

Management of Information--
Management and staff have the right information to make daily decisions.

Measurement--

Indicators of success and objectives are aligned with the strategy at every level.

ORGANIZATION

Line management is responsible for quality measuremenmt and the accomplishment of HCHP's strategy. Therefore, the structure for building the appropriate management support systems is the management of each key business unit.

HCHP staff take action in their departments or are organized into Quality Improvement Teams which focus on major processes and improvements.

PARTICIPANTS

HCHP staff engage in quality improvement efforts either individually or as team members while being responsible for delivering excellent medical care and other services. Managers support staff in continuously improving quality and service while continuing to sharpen departmental focus and priorities. HCHP leadership maintains the organizational environment conducive for continuous quality improvement while aligning the vital management support systems. A cadre of facilitators has been trained and aids local and divisional quality improvement efforts.

POLICIES

Quality Management is a line management responsibility not a staff function, so each management team is responsible for setting improvement targets and objectives for their area of focus.

ANALYSIS

LESSONS LEARNED AND CAUTIONS

Quality Management must be linked to accomplishing the organization's strategic plan if it is to yield meaningful results.

Developing measures of strategic success (including objectives) and reviewing them routinely are vital to keeping Quality Management appropriately focused.

Line management and staff must be the force behind Quality Management if it is to be successful.

Keep it simple. Quality Management jargon and complex methodologies are barriers to integrating Quality Management into daily operations and everyone's work.

Although learning the improvement process is important, linking the quality improvement activities to desired results and deadlines is the only thing that keeps the process from getting bogged down in analysis and dragging on longer than the problem warrants.

There is nothing magic about the tools. The approach to problems and opportunities guided by good judgement makes the difference. Do not get too zealous about the process. Getting the methodology and simple tools in the hands of the staff and managers, without requiring ridged adherence to formal team procedures, will enhance results and avoid cynical reactions to the entire effort.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Continuous Quality Improvement

MCO HealthAmerica of Pittsburgh, Inc.

VALUE/OUTCOME/IMPACT

OBJECTIVES

HealthAmerica of Pittsburgh, Inc, a Coventry HealthPlan, is seeking to create and maintain an organizational environment characterized by an absolute focus on anticipating and meeting customer needs, empowering and involving all staff at all levels for service improvements, relying on objective data in decision making, and accepting continuous improvement as a key factor for organizational success.

NOTABLE RESULTS

During its two year program HealthAmerica has:

Reviewed and improved approximately fifteen key processes through the work of quality action teams. Due at least in part to this work, member satisfaction levels increased to an overall level of 94% in January, 1994.

Enhanced communications by breaking down interdepartmental barriers to communications and speeding communications among people interested in problem solving.

Advanced from nothing to limited use of CQI tools by interdepartmental teams designated by senior management and beyond to departmentally initiated application of CQI tools to address departmental processes.

DESCRIPTION

KEY ELEMENTS

The HealthAmerica CQI process has the direct support and active participation of the CEO and the senior management team.

Team leaders, process facilitators and team members are well trained with training evolving to a just-in-time basis. However, each new employee receives eight hours of Quality Awareness training, and a 12-hour TQM tools course is offered at least quarterly for new staff or those wanting a refresher. All training is conducted by HealthAmerica staff who have completed a train-the-trainer program developed and conducted internally based on materials purchased from an outside vendor.

All CQI Teams have opportunities to review their processes and recommendations with senior management and then implement and monitor recommendations endorsed by senior management. Typically, all major process changes that involve multi-departmental functions are reviewed and approved by senior management before implementation.

Team leaders and members are supported and recognized throughout the process. Process facilitators assist the team leaders/members to select and use the proper CQI tools, and they provide feedback and suggestions to team leaders about improving leadership effectiveness and addressing group dynamics. Periodic meetings with senior management validate the team's efforts and ensure that they are meeting management's expectations. Each team has a senior management mentor to help guide it through the process and to alert the team to any management or organizational issue that may affect the team's efforts. An outside luncheon is hosted for each team at the conclusion of its work to celebrate its accomplishments.

Results of CQI efforts are communicated throughout Health-America. CQI newsletters are published quarterly to highlight the work of the current teams and their recommendations and accomplishments so far. When each team completes it work, a final article, team photo, etc. are published in the newsletter.

ORGANIZATION/PARTICIPANTS

Senior management serves as the Quality Council that provides overall direction, focus and guidance for the CQI process.

An Operational Excellence Committee, comprised of several senior managers, other managers, team process facilitators and team leaders, oversees the day-to-day implementation of CQI and addresses team and facilitator issues. This Committee also is developing a plan for implementing CQI during the next 12-18 months.

Teams are organized typically on an interdepartmental basis, drawing membership from each department or work area directly affected by the issue and with a vested interest in its positive resolution. Team members must be empowered by their departmental manager to represent and act knowledgeably for the department to resolve the issue to the benefit of all parties involved in the CQI process and, ultimately, to the benefit of the members and patients.

Team leaders are selected for their awareness of the issue and their interest in improvement. They are trained in the philosophy, tools and techniques of CQI. They are supported by a process facilitator (an expert in the tools and techniques of

CQI) and a mentor (a senior manager who provides the broad organizational perspective often necessary for optimal improvement).

PROCESS

CQI Teams follow a four-step process--FADE:

FOCUS--The team identifies the problem and defines it through a problem statement.

ANALYZE--Sound objective data is gathered and analyzed to provide facts that enable the team to continue its work.

DEVELOP--The team develops and considers potential resolutions, based on data, analysis, and conclusions reached in the Analyze phase.

EXECUTE--The team gains commitment for its recommended improvements, implements its recommendations and monitors their impact.

Tools and techniques which have proved to be most useful include brainstorming, flowcharting, cost-benefit analysis, fishbone diagram, force field analysis, impact analysis, multi-voting, Pareto analysis, and selection grid, and a few others. The value of each tool is directly linked to the phase of the teams efforts.

The leadership of the team leader, especially his/her department head and senior manager, and the support, direction and expertise of the facilitator, team mentor and Quality Council are critical to the team throughout the process, but especially in the Analyze and Develop phases.

POLICIES

The HealthAmerica CQI process is operated with the following policy guidance:

Rely heavily on valid data throughout the process.
Focus on processes rather than people as limiting factors.
Make improvements among and between functional areas as well as within them.
Customers and providers should view each other as partners in the process.
Continuously pursue quality to save money.
Continuously pursue quality as a strategic imperative.

DATA USED/PRODUCED

CQI teams generate data through member surveys, employee questionnaires, discussions with customers and other sources. Such data support the analysis and development phases. Data are also collected in the Execute phase to objectively determine the impact of the recommendations being implemented.

ANALYSIS

DISTINGUISHING FEATURES

HealthAmerica has customized the steps necessary for CQI to create its FADE process--Focus, Analyze, Develop and Execute.

CRITICAL SUCCESS FACTORS

HealthAmerica has found the following key features of the CQI process to be critical to success with the process:

- Customer focus.
- Total involvement of the organization.
- Decision making based on data-supported facts.
- Recognition of and responsiveness to the fact that CQI is really a continuous process.
- Organization and system-wide support that includes embracing quality, feedback, and reward mechanisms.

KEY RESULT AREAS

HealthAmerica has effectively used CQI-FADE to produce the following significant results:

Create a new system of information flow to a major provider hospital that produces more timely and accurate information tailored to its needs and specifications.

Improvements that include revised forms and the implementation of standard operating procedures to reduce and manage deferred claims.

Clarification of issues to be addressed directly by Member Services thereby enabling staff to answer and resolve member questions and issues.

System-wide changes enhancing continuity of care including changing the names and images of medical offices and expanding member education efforts to cause members to establish long-term relationships with a primary care physician.

Improved employee communications and employee knowledge of the company and its operations.

Improved process for resolving member complaints.

Improved methods and procedures for implementing rate renewals to reduce and eliminate billing errors to clients and to ensure members receive accurate benefit information.

Improved system for referring patients to specialists by allowing patients to self-schedule appointments to referral specialists thereby avoiding unnecessary steps, time lags, etc.

LESSONS LEARNED

Keep the problem addressed by a CQI team narrowly focused and define it well and specifically.

Teams must be cross-functional to be effective.

Training and support of team leaders especially must be a focused and high priority task.

Clear roles for team leaders, team mentors, process facilitators and team members must be established and clearly communicated to all participants.

Recognize and accommodate the fact that CQI can initially be a time consuming process that requires dedicated resources for significant periods of time.

CAUTIONS

Avoid the tendency to "jump to solutions;" instead, recognize the value of the entire process.

CQI process and teams are not appropriate for every situation.

Avoid creating numerous teams working on insignificant problems or processes and create fewer teams working on significant or critical problems.

Train team leaders and team members in the philosophy of CQI as well as its techniques.

Prepare to deal with high levels of frustration associated with the time it takes to do CQI right.

Prepare for the fact that CQI takes time, resources, and support.

Work diligently to set realistic expectations and to observe realistic timetables.

COST ESTIMATES

Time — Time is the most significant cost and includes time in training, team meetings, preparatory work for team meetings, data gathering and analysis. Increased levels of management are required to continue productive department operation while accommodating the time spent on CQI activities.

Staff — No staff are dedicated full time CQI staff; all hold regular full-time responsibilities in a variety of departments and contribute to CQI on an additional-work or voluntary basis.

Money — Direct costs include training materials, internal and external training sessions, resource materials, professional and administrative support for teams, team recognition, etc. was budgeted for the first time in CY94 at approximately $150,000.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Performance Measurement **MCO** United HealthCare Corp.

VALUE / OUTCOME / IMPACT

OBJECTIVES

United HealthCare (UHC) is pursuing the following objectives related to healthcare performance--

To measure and advance the state of the art of health care performance.
To enable UHC to participate as a leader in the industry.
To enable UHC to contribute constructively to health care reform.

NOTABLE RESULTS

UHC has created a quality management program--Quality Screening and Management (QSM[SM])--to support quality improvement actions by plans.

UHC is using profiles of physician practice patterns to improve the level of plan health performance.

UHC has issued a "Report Card" providing health plan performance in four areas--consumer satisfaction, quality of care, operating efficiency, and cost reduction.[1] The UHC Report Card is recognized nationally as a prototype for health plan accountability.

UHC is selling its performance evaluation services to others.

DESCRIPTION

KEY ELEMENTS

UHC's multiple efforts aimed at measuring and enhancing the performance of its owned and managed health care plans include the creation and operation of a Center devoted to a broad range of performance-oriented activities. Three of those activities are Quality Screening and Management, Physician Profiling, and Report Cards.

HEDIS 2.0 (Health Plan Employer Data and Information Set) includes five major areas of performance: quality, access and patient satisfaction, membership and utilization, finance, and descriptive information on health plan management.

Center for Health Care Policy and Evaluation (UHC-CHCPE)--
UHC has created a multi-disciplinary center of 60 persons working to develop an infrastructure (e.g. a data base, analytical methods, software applications, reporting methods, etc.) for evaluating health care performance and translating the results into meaningful interventions that improve the performance of UHC health plans.

The UHC-CHCPE is focused on standard setting, cost effectiveness, outcomes research, quality measurement, and health care analysis activities.

The UHC CHCPE has created and refined a 2-million member longitudinal, relational database reflecting the services of more than 22,000 physicians, over 500 hospitals and integrating inpatient, outpatient, pharmaceutical, enrollment, and provider descriptive data.

Quality Screening and Management (QSM^{SM})
UHC's Quality Screening and Management (QSM^{SM}) is a program of activities using tools and methods:

To examine plan data, (e.g. variances in plan performance from recognized standards or variations in patterns of care delivery for conditions without standards).
To identify areas for quality improvement.
To report findings.
To propose potentially appropriate quality improvement actions.

QSM^{SM} is a three stage process:

Claims Data Screening--Entire populations are screened for quality problems using quality indicators and practice guidelines, comparison algorithms, and automated report set analysis.

Medical Record Analysis (optional)--Claims data are validated, findings screened and actions targeted.

Quality Improvement Actions--Priorities are identified, quality improvements implemented, and the impacts of improvements are checked.

Report Card
UHC's Report Card was developed to respond efficiently to purchasers, to promote industry accountability, to compel and assist plans to improve performance, and to monitor changes in plan performance brought about by health reform. It provides specific measurements, and comparison data as available, of consumer satisfaction, quality of care, operating efficiency and cost reduction that are valid yet easily understandable.

UHC's first reported set of performance indicators includes:

Consumer Satisfaction--physician care, customer service response, access (selection of physicians), and overall satisfaction.

Quality of Care--pediatric immunizations, mammography rate, diabetic eye exams, annual Pap smears, survival rate of liver transplants, C-section rate, hospitalization rate for pediatric asthma, and low birth weight.

Operating Efficiency/Administrative Costs--Claims turnaround, claims accuracy, claims electronic submission rate, administrative costs per member per month, and recovered payments for duplicate coverage.

Cost Reduction--average rate of premium increases (3 years), utilization, ROI for medical claims review, and cost savings from effective medical management of potential liver transplant cases.

Physician Profiling

UHC-CHCPE is modeling clinical logic and using software to develop physician-specific profiles of utilization patterns and the costs associated with them. Physician Profiling, a desktop tool, uses case data, peer-based norms and comparative report software to describe physician performance in the areas of cost, quality and utilization.

Other Products

Other products include ProSight^{R}, an executive information system of reporting packages for managing health care costs and utilization.

ORGANIZATION

UHC's QA/performance measurement results derive from its overall commitment to quality evaluation as reflected in its operation of the Center for Health Care Policy and Evaluation and its family of evaluation and reporting products.

QSM^{SM} implementation began in early 1991 and proceeded at the rate of integrating one UHC health plan (usually an IPA-model HMO) every four to six weeks.

PROCESS

Quality Screening and Management (QSM^{SM})

QSM^{SM} results require analysis of approximately one (usually calendar) year of claims data linked to provider and member enrollment files.

During early applications of QSM℠, a nurse epidemiologist analyzes the data results and together with a quality assurance nurse presents the findings to plan management. The plan decides whether to proceed to a review of medical records based on a cost-benefit analysis. Quality improvement actions and their priorities are decided by the plan.

The development of QSM℠ continues to focus on selecting the most important quality indicators and on providing plans and others state-of-the-art information.

QSM℠ software cleans, sets up and runs the UHC database against the clinical logic developed or incorporated by UHC and produces information used by UHC-CHCPE in physician profiling, quality improvement and reporting.

Report Card

Most of the comparative information used by UHC currently comes from the Centers for Disease Control or the National Center for Health Statistics and from the clinical literature.

Physician Profiling

UHC developed its Physician Profiling Guides using UHC-CHCPE generated data and working with Minnesota area physicians through 20 panels of Medica (a United Health Care Plan) physicians. (Authoritative protocols are now much more readily available).

POLICIES

Report Card

UH-CHCPE selected the performance indicators in its Report Card to reflect some overall goals of the health system--reduce overall costs and spending, improve quality, lower administrative costs and increase efficiency, and improve consumer satisfaction. Specific indicators were selected using the following criteria:

- Solid clinical evidence existed for the quality of care items,
- Data were readily available for the measurement, and
- The information would be useful both externally and internally including the ability to make fair comparisons among UHC plans.

UHC ties the compensation of UHC plan managers to plan performance reports. Such payment incentives are started with the plan CEO. Physician incentives can then be added with due attention to fraud and abuse concerns. UHC seeks performance indicators for incentive plans that are technically feasible, merit some clinical consensus, are part of the constant

demands for value from purchasers and review organizations, and provide incentives for appropriate medical practice.

Physician Profiling

The results of physician profiling are not immediately used to "hold specific 'bad' plan physicians accountable." UHC has adopted a much more considered approach to physician counseling based on its appreciation of the causal complexity underpinning such problems as low immunization rates and the difficulties created by having to work with small numbers of events. However, UHC has used its physician profiling information to remove physicians from its provider roles especially in Atlanta.

ANALYSIS

DISTINGUISHING FEATURES

UH-CHCPE focuses its quality and cost-effectiveness evaluation on the health services received by enrollees, not on identifying aberrant behavior by providers or support staff. For example, its goal is to improve the average physician practice.

UH-CHCPE relies on normative standards or practice guidelines reflecting clinical agreement in a particular area.

CRITICAL SUCCESS FACTORS

UHC's long-term corporate commitment to quality and industry leadership has contributed to its successful development of performance measurement activities.

UHC's focus on overall plan improvement in the long-term through a continuous quality improvement approach that is based on the skillful analysis of valid and relevant factual information has been an important factor in its successful application of performance measurements.

KEY RESULT AREAS

The combined performance reporting or Report Card shows each UHC health plan the multiple dimensions of its performance at one time enabling its management team to assess more effectively where to focus improvement efforts.

The combined reporting also prompts multiple plan departments to come together to discuss results in working groups that heretofore had not been brought together. Senior management from quality assurance, provider contracting, finance and

customer service have begun group discussions of systematic improvement efforts with new perspectives and new team participants.

UNIQUE CONDITIONS

UHC has funded a special center, its Center for Health Care Policy and Evaluation, has ensured that the Center has the operating data it needs for analysis, and has maintained a corporate commitment to apply the Center's results in managing its health plans.

The Center has responded by becoming an industry leader in research and analysis supporting physician profiling, health plan performance reporting (report cards), and quality evaluation (Quality Screening and Management System). Furthermore, the Center has created the HealthCare Evaluation Services unit to market its products and services and to fund its continuing activities.

UHC remains committed to meeting the Center's ongoing need for a broad spectrum of patient encounter data regardless of changes in physician payment arrangements.

LESSONS LEARNED

The close involvement of local health plans is needed to interpret usefully and accurately the Quality Screening and Management[SM] results.

"Less is more" in the early stages of performance reporting. UHC-CHCPE has much more data on quality than it has chosen to report in its first Report Card but has withheld it to avoid confusion.

Quality measures should focus on those aspects of health services that the health plan can control.

Case-mix differences (differences in the health and risk profiles of enrollees) must be considered in developing certain plan comparisons.

The creation and use of a "cleaned up" and useable claims data base as a central element of UHC's QSM[SM] and physician profiling programs refutes the myth that claims data have no validity. However, UHC virtually had to rebuild the data base.

Systematic and sustained change takes time. It takes time for a plan and its physicians to get ready to make changes based on detailed and irrefutable information, but solid performance numbers placed before physicians and managers do become a call to action when accompanied by evidence of clear opportunities for substantial improvement.

Only three to four aspects of the clinical practice within any specialty can possibly be changed by a plan in any year.

If a plan is starting today to measure physician performance using profiling techniques, it should use the existing authoritative sources of protocols and practice guidelines and not try to develop them internally. Attention should then focus on getting physicians satisfied with such guides.

DEVELOPMENT PLANS

The next generation of the Quality Screening and Management System[SM], which now is applied at UH-CHCPE, will likely incorporate personal computer reporting capabilities through which plan users can generate their own analyses of plan performance with QSM[SM]-produced data.

Much more comparative information is needed in all areas of performance reporting.

UHC plans to incorporate in an expanded Report Card both those of the 13 quality of care measures recommended by the HMO Quality of Care Consortium (supported by The Hartford Foundation in work with Rand researchers) not already included and those measures being recommended now by NCQA.

UHC is conducting a study of the effectiveness of performance tied physician incentives using 3 plans in a 2-year study.

UHC will incorporate more results from benchmarking efforts--identifying specific levels of outstanding performance attained by other plans or even other industries for specific functions--in its performance improvement program.

COST ESTIMATES

TIME

Development of report card (identification of performance areas and indicators, obtaining usable data, designing the presentation)--approximately 5 years

Development of member-specific, longitudinal relational database--3 years

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Physician Profiling

MCO Blue Cross Blue Shield of Minnesota

VALUE / OUTCOME / IMPACT

OBJECTIVES

Blue Cross Blue Shield of Minnesota (BCBSM) through its HMO, Blue Plus (Blue Plus-MN) is committed to selecting and maintaining a provider network based on quality-related features of provider performance.

NOTABLE RESULTS

Blue Plus-MN created and has operated since January, 1993, the Project HealthVision Select Cardiac Care Network for elective treatment of its Blue Plus-MN members and for some of its fee-for-service patients.

The Select Cardiac Network involves providers who have substantially lower rates of morbidity, mortality and other adverse outcomes. These clinical results mean not only better quality for BCBSM patients, but they also help control costs since each adverse outcome averages $15,000 in additional costs.

A Network Providers Steering Committee is working to improve cardiac care continuously. Valuable long-term partnerships are developing among payers, providers and purchasers and community resources are being used more appropriately.

DESCRIPTION

KEY ELEMENTS

Blue Plus-MN has selected hospitals and their affiliated cardiology groups for its Cardiac Care Network based on their clinical outcomes and their commitment to Continuous Quality Improvement instead of the usual approach based on unit cost, accessibility and tradition.

Ten of the 22 hospital programs that applied for network membership were selected. These 10 programs include 15 groups of physicians. Those providers selected averaged 2.9% post operative heart attacks (a serious adverse outcome) vs. the rest of the providers which averaged 10.5% post operative heart attacks. Furthermore, the mortality rate of the non-selected providers was 3.5-times (52/1000 vs. 15/1000) that of the selected providers.

BCBSM used MedisGroups data to identify the differences in adverse outcomes.

The network targets five cardiac procedures:

Cardiac catheterization,
Electrophysiologic studies,
Percutaneous transluminal coronary,
Angioplasty,
Coronary artery bypass grafts, and
Valve surgery.

Blue Plus-MN is negotiating with some of the providers a global per-case payment which covers both physician and hospital services.

Other key elements of the program are a set of clear goals and clear relationships to the BCBSM mission, clear and defensible selection criteria, and solid formal contracts with providers that specify their commitments.

PROCESS

The Select Cardiac Network was created through an internal BCBSM Task Force. After preliminary design the Task Force obtained corporate buy-in to the program.

During a nine-month development process, the Task Force conducted a literature search and review, obtained input form the BCBSM Medical Directors, and analyzed its MedisGroups clinical data. Once a defensible set of selection criteria were developed, RFPs were sent to all hospitals and to all cardiology groups, but the RFP focused on a seamless cardiac program. The Task Force sought a joint hospital-physician proposal but would accept separate proposals from hospitals and physicians.

The RFP required providers to report their own performance in such areas as credentialing, outcomes, morbidity rates, complications, etc.

The Task Force reviewed proposals from all 22 hospitals solicited and from 34 of their affiliated physician groups using the providers' own information and introducing various criteria and standards such as minimum procedure volume. It also sought providers with the greatest capability and commitment to CQI as evidenced by the clinical parameters they were using, the patient selection guidelines in use, and the CQI process itself with special attention to the findings and changes it had brought about.

Site visits were made to a preferred subset of applicants, and hospitals and physicians were required to participate in the site visits as teams and to show their quality improvement activities and results.

After the site visits and additional deliberations, Network participants were selected, provider contracts were negotiated, and the Select Cardiac Network was marketed. Select Cardiac Network Providers enter into 3-year contracts and commit to Continuous Quality Improvements, package payments and the submission of other outcome data.

POLICIES

Blue Plus-MN is developing a process manual that documents and refines the process used to establish the Select Cardiac Network so guidelines are available for the development of additional quality-based networks.

When provider profiling information is available, BCBSM and Blue Plus-MN do not follow an excising approach to quality improvement. Instead of eliminating the high outlying providers that have poor outcomes, the goal is to improve the average outcomes of all network providers.

PARTICIPANTS

The Blue Plus-MN/BCBSM Task Force was a cross functional group representing all operating areas--medical affairs, provider contracting, quality improvement, and other areas.

Many external participants were included in the development process too. Purchasers of care were represented by benefits managers through six focus groups that provided input from 50 companies. Other participants included primary care physicians, surgeons, cardiologists and administrators. Primary care physicians who served as gatekeepers in the Blue Plus-MN HMO were very important in providing input after the early preliminary selection. Surgeons were involved separately from cardiologists. A Program Steering Committee was ultimately created consisting of surgeons, cardiologists and administrative personnel.

ANALYSIS

CRITICAL SUCCESS FACTORS

The process needs sound (valid and appropriate) data. MedisGroups data proved sound enough because of its clinical detail. There was some problem about not knowing all the details of the MedisGroups data processes but it was overcome.

Corporate commitment from the top is essential. Networks must be part of the corporate strategy. At BCBSM networks were viewed as a key lever for system changes and they ranked as the number one such influence out of ten being pursued. The view must also be long term and must incorporate continuous quality improvement.

Adequate staffing is needed to carry out the task and the staff must be highly collaborative.

An adequate selection process must be used, one that relies on recognized standards, such as the Guidelines of the American Cardiologists used in creating the Select Cardiac Care Network.

Provider buy-in must be developed as the program is initiated and then maintained once the program is operating. The buy-in must include the commitment of the primary care physicians in the HMO setting. Progress reports, other open, regular communications and meetings as necessary must be continued to preserve and enhance the provider buy-in.

KEY RESULT AREAS

Blue Plus-MN is experiencing fewer adverse outcome cardiac care cases and cardiac cases are costing Blue Plus-MN less.

The Cardiac Care Network providers are in the midst of a vital and unique Continuous Quality Improvement process focused on cardiac care which will have long term positive results.

The Network is allowing Blue Plus-MN greater strength in limiting unnecessary proliferation of new medical technology.

By concentrating patient volume, treatment outcomes should improve even further among Network providers and further economies of scale may be realized.

UNIQUE CONDITIONS

BCBSM is committed to managed care and has been for some time.

Minnesota purchasers of health care are buying based on value and forcing greater value from plans so they supported development of the Select Cardiac Network.

The level of trust between BCBSM and the providers at the start of the program was low, but the marketplace is so highly competitive that no provider could afford to be left without trying to be included in the restrictive program.

State and national health reform are forcing greater use of data and changing interactions from business as usual; providers are getting used to using such outcome and performance data and have gradually come to see the Select network process as a learning experience.

LESSONS LEARNED

Selection means non-selection too, so there is always some organization that is unhappy when a network is created. Consequently, the selection process must be thorough, specific and defensible.

Be prepared and flexible to work through issues of trust throughout the program. For example, to emphasize the validity of the program data used by Blue Plus-MN, the program data reported by the Network providers will go to Dartmouth College for analysis and presentation formatting for feedback to both BCBSM and the Network providers.

Blue Plus-MN has served as a convener and facilitator in the creation and maintenance of the CQI process for Cardiac Care in the community, an essential role that neither the physicians nor the hospitals have previously assumed.

CAUTIONS

Do not rush the process; get away from the quarterly results mentality. Arrangements will take time to develop the first time through.

Prepare for opposition from the very beginning; not all providers will like the results.

Maintenance is essential; the development process and the operating program will not run themselves. Analysis, record keeping, reporting back to participants, meeting setup and other services must be provided.

DEVELOPMENT PLANS

Additional networks are planned including Neurology, Occupational Therapy, Physical Therapy, Orthopedics, and Occupational Medicine.

Blue Plus-MN wants to extend the use of its global per-case rate to include pre-inpatient and post-inpatient services too.

Blue Plus-MN also plans to introduce risk adjusted payment methodologies that pay more for providers who produce superior risk-adjusted clinical outcomes.

The Network Providers Steering Committee created under the auspices of the Select Cardiac Care Network will explore such program features as shared interactive decision making videos to involve consumers (such as the one developed for prostate surgery by Dartmouth).

The data analyses used to support the programs development and operation was done through mainframe mounted SAS jobs. Within a year, Blue Plus-MN/BCBSM will have full download and PC-based analytical capabilities developed and will use the cardiac care episode file as a test case.

COST ESTIMATES

TIME 1.5 years to design the program, formulate the selection process and criteria and to contract with the successful providers.

STAFF Approximately 1.5 FTEs spread throughout Blue Plus-MN and BCBSM were required to start up the program. Maintenance of the program is taking approximately 0.5 FTEs.

MONEY Information system changes were the largest cost associated with establishing the Select Cardiac Care Network; approximately $250,000 has been spent on such changes during the last several years but they have supported other developments too.

It cost approximately $30 per procedure to report back to providers, including all data collection costs too, so it requires approximately 0.1% of the cost of care to maintain an effective effort focused on measuring outcomes and improving quality.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Physician Profiling

MCO Harvard Community Health Plan

VALUE/OUTCOME/IMPACT

OBJECTIVES

The Medical Groups Division (MGD) of Harvard Community Health Plan (HCHP) serves 150,000 members largely through ten medical groups whose membership varies between 4,000 and 23,000 members. MGD is developing a process to identify and assess variation in outpatient clinical practice and to use such information to establish clinical guidelines and to shift physician behavior in line with such guidelines.

NOTABLE RESULTS

MGD began in March, 1994, to profile routinely its approximately 500 physicians in 10 different groups by applying a customized Health Chex software package to its MGD claims data. The Health Chex package incorporates a case mix adjustment for severity based on statistical computations about the group rather than a standard protocol.

DESCRIPTION

KEY ELEMENTS

The Data Source

The data source for the profiling analysis is the MGD claims data base. It consists of data provided by tape in standard format by each of the medical groups and resides on HCHP's AS400 computer. The clinical coding (ICD-9 and CPT-4) is provided in one of several ways--physician entry of codes, physician checks of pre-printed codes, and clerical entry from physician notes. The HCHP system accepts only two ICD-9 diagnoses per encounter.

Physician Profiling Software Packages

MGD classified physician profiling packages as either measuring performance against a standard protocol or against the practice patterns of a defined subset of similar physicians.

MGD evaluated several protocol-based profiling systems including the GMIS Episodes of Care and the HPR Patterns of Treatment and the case-mix severity adjuster, Ambulatory Care Groups (ACG) system developed by Johns Hopkins University. None of these systems met MGD's needs regarding both case mix adjustment and an adequate reflection of HCHP's managed care

standards. Neither of the profilers was case mix adjusted, and the ACG system was designed for utilization management, not to explore physician practice patterns.

The ACG system is designed to compare physician groups based on actual per member per month (PMPM) cost and visits against expected PMPM costs and visits.

The results from applying the ACG system to MGD data were compared with known group characteristics such as type of coding process, number of appropriate hospital admissions, adherence to preventive screening guidelines, and the preponderance of types of ICD-9 diagnostic codes.

The main drivers of the ACG results were found to be coding approaches, previous utilization, and individual contracted costs per group. For example:

A one-to-one positive correlation existed between expected PMPM costs and the percent of encounters with a second recorded diagnosis independent of the degree of severity of the diagnosis.

Groups with high past utilization rates generated high expected PMPM rates.

MGD physicians questioned the groupings of various diagnoses. A single diagnosis and similar diagnoses can be grouped in multiple ways as in the case of Otitis media which can be in 5 different Ambulatory Diagnostic Groups, yet is the most common (15%) of all MGD codes.

MGD also analyzed its data using the ACG system at the level of Ambulatory Diagnostic Groups because of its concerns. These Diagnostic Group level results magnified the ACG-level results for those medical groups with the widest deviation from the MGD average costs, but not for the visit comparison.

MGD concluded that the Ambulatory Care Group system is a utilization-based, not a severity-of-illness based, case mix adjustment that is very dependent on how the individual provider codes. While MGD found it to have explanatory powers statistically, MGD judged the Ambulatory Care Group system not to be validated yet in the marketplace.

MGD chose the Health Chex PEER-A-MED package with its Clinical Complexity Index, for statistically based (not protocol based) case mix severity adjustment.

Health Chex provides a severity ranking of 1 to 4 in four categories--acute illness, chronic illness, mental health and pregnancy--and a ranking of co-morbidity on a scale of 1 to 3 based on the diagnoses involved. MGD included an additional severity scale that reflects the degree to which CPT-4 codes were used which exhibited minimum variation.

ORGANIZATION

The Medical Groups Division is one of three divisions of HCHP. MGD is headed by a president who reports to the CEO of HCHP. MGD contracts with its groups (and pays by capitation) to deliver all health care to HCHP members. MGD also provides centrally all data processing.

PROCESS

MGD has been providing the Medical Directors of its groups since 1986 with departmental and physician-specific information that is not case-mix adjusted. Such information is provided quarterly for both direct and referral cases and includes:

Total number of members seen.
Total number of visits.
Total cost of services provided.

MGD validated the use of its claims data for analytical studies. MGD was concerned about the percentage of coding errors for each group, the extent to which two diagnoses were recorded, and whether the different methods of coding diagnoses were associated with differences in utilization.

To evaluate the physician profiling packages, MGD transferred clean claims data for 1991 to various vendors of the risk adjustment and profiling packages for service bureau analysis.

PARTICIPANTS

The Associate Medical Director of the Medical Groups Division and the MGD's senior analyst led the assessment of the MGD claims data and the evaluation of the physician profiling packages. The results of the service bureau analyses were reviewed by the MGD Associate Medical Director and senior analyst together with MGD senior management, clinical managers, and various medical group directors.

DATA USED/PRODUCED

The MGD profiling effort resulted in ambulatory care group analysis of the patient activities of the 10 HCHP medical groups and special projects to modify the grouping approach.

HEALTH CHEX was used on a pilot basis to profile one group's 31 physicians based on a subset of 23,000 patients. The physicians were compared on the basis of relative clinical complexity of cases. This profiling was then used to further examine the utilization patterns of those physicians whose expected costs were significantly different from those of their colleagues.

ANALYSIS

CRITICAL SUCCESS FACTORS

The ultimate success of MGD's profiling efforts will be the impact the feedback of profiling results has on physician behavior. Such feedback of severity-adjusted profiling information has just begun.

KEY RESULT AREAS

MGD has obtained from Health Chex a customized physician profiling package with a statistically (rather than standard protocol) based case mix adjustment for use with its physicians.

MGD is using the Johns Hopkins Ambulatory Care Groups system (ACG) in budget planning but not for physician profiling. The ACG system provides helpful direction in planning for capital expenditures, until the Health Chex system is running and validated.

MGD standardized the method for capturing diagnostic coding for encounters through the use of a check list of common diagnoses on the encounter form.

LESSONS LEARNED

The majority of the MGD patient encounters were properly coded. However, the accuracy of diagnostic ICD-9 codes varied markedly with the method used to assign such codes. Consequently, MGD is implementing encounter forms that include some pre-coded diagnoses with space for additional write-in diagnoses for all groups.

MGD is working with Health Chex to modify its profiling package to produce its results in a more easily accessible format. The revised Health Chex package will be available in June, 1994.

COST ESTIMATES

MONEY No funds were directly budgeted for this project.

TIME The project work was carried out during a one year period on a part time basis.

PERSONNEL A summer intern cleaned the data and ran iterations of ACG and ADG (the higher level clusters) analyses for three months. A 0.25 FTE senior staff analyst worked on the project for the year and the MGD Associate Medical Director contributed ten percent of his time during the year. On-going support for profiling is being provided by a 0.5 FTE senior staff analyst and a 0.25 FTE physician.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Protocol Applications **MCO** HealthAmerica of Pittsburgh, Inc.

VALUE / OUTCOME / IMPACT

OBJECTIVES

HealthAmerica of Pittsburgh, Inc., a Coventry HealthPlan, (HealthAmerica) intends to improve the clinical practices of physicians and thereby improve patient satisfaction and clinical outcomes by designing, conducting, evaluating and reporting clinical studies as the basis for developing clinical guidelines.

NOTABLE RESULTS

Since 1991, HealthAmerica has studied and reported on several clinical processes that have led to the reporting, development and application of clinical practice guidelines, including:

Factors contributing to higher complication rates and predictors of successful outcomes associated with coronary artery bypass graft (CABG) surgery and results of cross-study comparisons.

Management of patients with diabetes mellitus.

DESCRIPTION

KEY ELEMENTS

HealthAmerica initiated clinical studies designed with increased scientific and statistical methodologies to generate data to influence physician clinical behavior. All studies follow the same process:

- Topic selection--problem identification, guidelines, and criteria
- Study format and design--population definition, sample, and data collection techniques
- Data display and analysis
- Transformation of data into Action Plans--identification of deficiencies and recommendations for problem resolution
- On-going evaluation and reassessment--feedback and assessment of corrections

All study results and clinical guidelines subsequently generated are prepared in a standard format that sets forth the:

Objective--targeted health problem, patient and physicians, and reasons for new guidelines.

Options--principal alternative (preventive, diagnostic or therapeutic) strategies available.
Outcomes--which outcomes were considered (death, morbidity, quality of life, costs, process changes).
Evidence--clinical study results, expert opinion, database analyses, patient and provider information.
Values--judges used, judgement methods used, and focus of ultimate benefit (patient, provider, payor, society).
Benefits, Harms and Costs--absolute, quantified measures of practice effects
Recommendations--major advice, briefly and specifically stated.
Validation--external reviews, degree of consensus, corroborating clinical trials
Sponsors--developer of guideline and source of funds

CABG Surgery Example

HealthAmerica studied patients undergoing CABG surgery at an affiliated hospital to examine patient and program characteristics and co-morbidity indexes found applicable in other studies. It confirmed the association and implications of such characteristics and reported them to primary care and cardiology physicians through memoranda, meetings, inclusion in a monthly physician publication, and distribution of a study summary. Quality Improvement (QI) staff also held an in-service training session and a meeting with utilization management nursing staff.

Sample findings from the study that were used to guide physician practices were:

> Patients with diffuse coronary artery disease had poorer results from CABG surgery because their vessels did not present good bypass targets; they experienced a higher incidence of post-operative infection and early graft closure.
>
> Three out of four deaths occurred among patients with diabetes mellitus.

Diabetes Mellitus Example

HealthAmerica is studying patients diagnosed with diabetes mellitus. The study has identified opportunities for improvements in patient education and management, glycemic control and follow-up services, including eye care, podiatry and nutrition services.

A multi-disciplinary Clinical Task Force, including a health educator, optometrist, diabetic educator, nurse, consumer,

podiatrist and two physicians, was formed to develop specific recommendations for improving diabetic management.

One recommendation resulted in all closed panel adult-care providers enrolling in a self-evaluation process of reviewing charts of their own diabetic patients to evaluate compliance with clinical guidelines. A survey incorporated in the process found the chart review process was overwhelmingly judged by the physicians to be a powerful and educational project.

Clinical guidelines outlining standards of care for insulin dependent and other diabetics were developed by the Diabetes Mellitus Task Force with input from the medical staff representatives of the Adult Medicine Quality Improvement Committee. The guidelines are for initial visits and follow-up care and address history taking, physical examinations, laboratory testing, referrals, patient education, and interim follow-up. They were promulgated to all plan physicians by the Medical Directors, the QI staff and the Diabetes Mellitus Task Force through memoranda, in-service training, department meetings and newsletters.

Patient education materials were developed by the Diabetes Mellitus Task Force with input from the medical staff, the QI Department and the Health Education Department to enhance patients' understanding of their diabetes. Topics include: Understanding Diabetes, Treatment of Diabetes, Coping with Complications of Diabetes, and Living with Diabetes. Individual materials are available in exam rooms and are distributed by the physician or diabetes educator. A compendium of these materials was prepared entitled "Live Well with Diabetes" and is being distributed to network physicians with instructions for obtaining additional copies.

The Diabetes Mellitus Task Force also developed a flow sheet for the front of the medical record to track the patient's progress and response to therapy and a checklist for use at each diabetic visit to monitor outcomes and compliance.

ORGANIZATION/PARTICIPANTS

HealthAmerica conducts its clinical studies and guidelines program with the support of members of Senior Management, the Medical Directors, the QI Department staff and physicians.

Topics for clinical studies and guidelines are developed by the Medical Staff. The Mental Health/Chemical Dependency, OB/GYN, Adult Medicine, Pediatric, and Radiology Committees, which include representatives of both the open and closed

provider panels associated with HealthAmerica, are responsible for developing clinical guidelines and clinical studies based on high volume, high risk and problem prone areas which such Specialty Committees identify within the Plan. Members of the Committees also establish target thresholds for each outcome measure, share information with departmental colleagues, and develop and implement Action Plans.

The clinical studies are conducted by registered nurses in the QI Department, in consultation with physicians in the appropriate specialties, based on clinical study criteria and data collection forms developed by the respective Specialty Committees.

HealthAmerica's QI Department engages an academic biostatistician/epidemiologist as a consultant. The consultant outlined the key elements of a successful clinical studies program and participates in designing and selecting the methodology for a study, identifying the study population, selecting random samples, and analyzing and interpreting the data. A medical librarian conducts literature searches guided by the Director or Manager of the QI Department.

PROCESS

The clinical studies and clinical guidelines program is an outgrowth of HealthAmerica of Pittsburgh's continuous quality improvement process.

All clinical studies performed by the QI Department are coordinated by the Manager who submits written study summaries to appropriate providers and QI committees. All clinical guidelines are coordinated through the QI Department, and the Specialty QI Committees ensure development of guidelines in their respective areas. Prior to approval, the Chiefs of Specialties review guidelines in their specialty and they are also shared with individual providers and the SVP for Medical Affairs, Physician-in-Charge for Network Operations, the Plan QI Committee Chairperson, and the Group QI Chairperson.

Topic selection is guided by a grid of factors: high/low volume, high/low risk, urgent/non-urgent problem, quality or service improvement, opportunity for intervention, opportunity to quantify and measure the improved outcome, has/has not management support, cost effectiveness opportunity, high/low customer satisfaction impact, long/short time commitment, and high/low interest.

An Action Plan is prepared to implement the practice guidelines. It is based on an analysis and interpretation of the data produced. Potential barriers to success are considered and accommodated throughout the development and implementation phases of the Action Plan.

Successful implementation of an Action Plan is monitored by re-measuring those indicators of clinical performance that did not meet established thresholds and those that are sufficiently different from community or national measures to suggest opportunities for improvement.

POLICIES

HealthAmerica views the traditional "bad Apple" approach to influencing physician behavior and improving clinical performance as being no longer adequate.

A consistent process to effect change in medical staff behavior is central to providing quality care and service.

DATA USED/PRODUCED

Data are displayed in both tabular and graphic forms which are accompanied by narrative descriptions and interpretations according to the standard outline previously described in the Key Elements section of this Outline.

The data are usually displayed in bar graphs that present such information as percentage of compliance with threshold, percentage of events, etc. They are often compared in physician specific format with comparisons to medical peers.

ANALYSIS

DISTINGUISHING FEATURES

The HealthAmerica physicians have "bought into" and participate in the quality improvement process, and QI activities are an important and accepted part of the medical staff and nursing staff activities.

Scientific methodology is employed to ensure credibility, reliability and reproducibility of clinical study findings, and sophisticated biostatistical support is used to enhance evaluations and interpretations.

Study results are communicated through "academic detailing," (a one-on-one peer communication process, not just through memoranda.

Clinical study findings arrayed on a physician-specific basis are reported to individual physicians to ensure accountability, and with proper presentation such data have proven to be a powerful tool in changing physician behavior.

CRITICAL SUCCESS FACTORS

The involvement of physicians and other providers throughout all phases of a clinical study and development of related clinical guidelines has enhanced the success of Action Plans to improve clinical performance.

LESSONS LEARNED

Physician input and support is invaluable throughout all phases of the development of clinical studies and clinical guidelines.

Sophisticated biostatistical support not only is essential for the validity of clinical studies but it also enhances the respectability and acceptability of such studies among the physicians.

CAUTIONS

Do not underestimate the importance of being clear and repetitive about the purpose and intent of proposed changes in behavior--documentation, patient compliance, etc.

COST ESTIMATES

The clinical study and guideline development process focused on coronary artery bypass surgery has cost approximately $41,000 since 1991 exclusive of the time and effort of the various standing QI and related committees.

Director of Cardiology--	100 hours
QI Manager--	250 hours
Biostatistician--	200 hours
Secretary--	100 hours

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Protocol Applications **MCO** HealthPartners

VALUE / OUTCOME / IMPACT

OBJECTIVES

HealthPartners and its associated medical groups created the Institute for Clinical Systems Integration (ICSI) to coordinate the quality improvement activities of the medical groups, several large employer-purchasers and the MCO itself. The medical groups include Group Health, Inc., Park Nicollet Medical Center, Mayo Clinic, Ramsey Clinic Associates and sixteen others. ICSI seeks to standardize and improve processes of care to improve health outcomes and reduce costs. It focuses on healthcare guideline implementation and outcomes measurement.

NOTABLE RESULTS

ICSI physicians developed guidelines emphasizing ambulatory care in 16 clinical areas during 1993. Thirteen of these guidelines are in pilot implementation. One has been revised in light of its pilot and is being fully implemented. Two began pilot implementation in January, 1994. Ten additional topics have been chosen for 1994, and work groups addressing four of these topics have started development. In all cases the objective is to standardize and to improve cyclically the care provided for the medical conditions in question throughout all twenty ICSI medical groups. Measurements of effectiveness are not yet available.

DESCRIPTION

KEY ELEMENTS

The ICSI initiatives include the development of healthcare protocols or guidelines as the current core function. Complementary initiatives address population health measures, technology assessment, outcomes measurement, healthcare information systems (fully automated medical record, decision support system and inter-connectivity by 1997), and continuous quality improvement.

ICSI prepared a Pareto Chart (a type of frequency distribution chart) of diagnoses seen in a multi-specialty group practice to construct "bundles" of ICD-9 diagnostic codes that could be addressed in healthcare guidelines to cover the bulk of encounters that occur in medical practice. Approximately 20 diagnostic bundles (respiratory infection, prevention, hyper-

tension, etc.) represent 75-80% of all physician and nurse activity. Many rare specialty diagnoses, e.g. Lupus, will not be covered in any ICSI guideline.

Each clinical guideline incorporates 1-2 short-term outcome measures and 1-2 process measures. Benchmark rates are nationally based but published rates tend to be old so ICSI updates theirs through telephone data collection from other plans. Some of the first clinical indicators or outcome measurements designated by ICSI are similar to HEDIS and include:

- Breast Cancer Guideline--measures 4 variables including mammography rate
- Childbirth Guideline--measures VBAC, C-Section rate, and Pre-term frequencies
- Cardiac Surgery Guideline--measures 30-day post-CABG mortality
- Pediatric Immunization Guideline--measures percent of 2-year-olds fully immunized
- Pediatric Asthma Guideline--measures hospital admission rate

In addition, ICSI is pursuing patient-reported outcomes projects in two areas--total hip replacement and pediatric asthma.

ORGANIZATION

ICSI is funded by HealthPartners but governed by physicians from the various member medical groups. Besides nine governing physicians, two representatives of purchasers and the HealthPartners medical director also serve as directors. The Executive Director, a physician, reports to the Board. Reporting to the Board's Executive Committee are a Chief Administrative officer, a Manager for Health Care Guidelines, a Manager for Data Collection and Analysis, and a Systems Manager.

Most of ICSI's work is accomplished through an extensive committee structure with four standing committees, including the Health Care Program Committee which oversees the guideline program. Works groups are established for particular guideline topics and other projects. These committees and work groups are made up of physicians and other healthcare professionals from the participating medical groups. Group process facilitators, health service researchers and others support the committees and work groups.

PROCESS

The ICSI guideline process is cyclical and consists of seven steps:

Development,
Critical Review and Approval,
Pilot Installation,
Revision,
System-wide Implementation,
Measurement of Degree of Agreement between the guideline and actual system and physician activity, and
Iterative Revision of system and physician activity or the guideline.

The development phase or healthcare process design phase involves a team of physicians, other clinical staff and administrators meeting for 3 hours every 2 weeks for approximately 3 months (21 hours) to produce a draft guideline and a companion document that argues the scientific justification, stipulates the measurements to be made and suggests implementation steps and processes.

The draft guideline is submitted on a rotational basis to the physician staffed Health Care Review Groups at each site for consideration, clarification and comment. It is then installed in 10-12 clinic sites and becomes required procedure there. HealthPartners' physicians have previously agreed to conform to such clinical guidelines but an individual physician may opt out of conforming initially with a particular guideline for cause.

Topics for clinical guidelines are chosen based on their scoring high on one of three sets of criteria:

Frequency of condition plus high probability of changed physician behavior (because of agreement) plus substantial changes in health outcomes,

Frequency of condition plus high probability of changed physician behavior (because of agreement) plus substantial cost improvement, or

Importance to the purchasers, physician groups or other stakeholders.

The measurements required by the guideline are made and included in a database which is then analyzed by the process design team. The guideline may be changed or augmented based on the analysis, and it then is installed throughout the HealthPartners network.

Once outcome measurements are reported back to the clinics, ICSI's role then becomes consultative, gently prompting changes based on the outcomes reported. The discussions of needs for improvements in outcome measurements are often part of the ongoing guideline review and implementation routines underway at each clinic.

POLICIES

Clinical guidelines or protocols require continuous updating, modification and refinement.

Clinical guidelines or protocols are tools to educate physicians and they will affect individual practice styles slowly.

The ultimate success of the clinical guidelines initiative will be gauged by whether the rate of increase in aggregate medical costs for the HealthPartners systems is no more than general inflation and by the improvement in the outcomes of care for specific conditions, reduced waste and variation in the administrative and clinical processes, and improvement in the overall functioning of the HealthPartners system.

ICSI will not be developed or operated in a way that fosters its own self interest; instead it will be always be a service and support unit to the clinical delivery components of HealthPartners.

PARTICIPANTS

Physicians are involved as participants throughout the guideline development process from their positions as managing directors of ICSI, participants in the initial guideline development process and in the guideline review and installation processes at their respective clinics.

RESOURCES/PRODUCTIVITY

The 1993 ICSI budget was approximately $5 million--$2 million in cash and approximately $2.5-$3 million of in-kind services from the HealthPartners organizations (physician time, data processing, etc.).

ICSI has spent $400,000 on the development with IBM Consulting of a model or prototype clinician work station that addresses the information and protocol needs of primary care physicians, specialists and nurses--flow charts for oncology, graphics for obstetrics, etc. Work continues toward full automation of clinical information management including the elimination of paper medical records.

ICSI keeps its own staff small and contracts out to its member organizations for services.

DATA USED/PRODUCED

Outcome measurements are accumulated, displayed and analyzed by ICSI and are reported back to the clinics using multiple control charts.

ANALYSIS

DISTINGUISHING FEATURES

Clinical guidelines or protocols are diagnosis-based, not procedurally based, to remove them as far as possible from reimbursement considerations. They begin by addressing detection and diagnosis and then proceed to address treatment. The guidelines are primarily addressing topics in primary care. Consequently, approaches using risk-level assessments and adverse outcome comparisons which are more appropriate to far more advanced disease conditions and treatment regimens are not part of the ICSI initiative.

CRITICAL SUCCESS FACTORS

Because of the extent of both physician direction and involvement, when guidelines are installed at a clinic, the physicians have seen them before, they know them well and they trust them and the process used to promulgate them.

Implementation is key and rapid and effective implementation of guidelines flows from the trust the physicians feel in the guidelines development process and its products.

KEY RESULT AREAS

During its first year of operation, ICSI's principal results have been completion and pilot installation of 16 healthcare guidelines, the completion of a model clinician work-station, and the establishment of a firm, direct partnership between physician groups and the employer-purchasers of the Business Health Care Action Group (BHCAG).

Some measurement of the impact of guidelines will be available as a by-product of measuring process improvement. In addition, special studies are underway, in more detail than would be required for internal audiences, to evaluate the effects of implementing guidelines .

UNIQUE CONDITIONS

ICSI's formation was catalyzed by explicit requests from BHCAG for an approach to healthcare improvement that would include guideline implementation, outcomes measurement, and direct engagement of the purchasers in the program. BHCAG includes most of the major employers in Minnesota: Norwest bank, 3M, Honeywell, General Mills, Cargill and others. BHCAG has followed through by participating on the ICSI Board of Directors, the standing committees and all guideline work groups. Its consistent interest and support ensure that HealthPartners and its medical groups continue to support ICSI activities.

For guideline implementation and measurement, ICSI depends on the effectiveness of the internal structures of its member medical groups. Most of these groups are large, well established and well staffed. The ICSI approach would not be likely to succeed in an environment dominated by solo, fee-for-service physician practices.

In addition, the Minneapolis-St. Paul healthcare marketplace is arguably the most developed in the country. Physicians well recognize that they must participate creditably in managed care programs to have secure access to patients. The desire for economic security appears to be an important motive for medical group participation in ICSI activities.

LESSONS LEARNED

Physician governance and direction of the guideline development process is crucial and was even more important than ICSI expected it to be. The ICSI activity caused physician groups within HealthPartners to partition themselves into subgroups to deal with guideline issues and to turn their own practice patterns around.

ICSI's deemphasis of short-term cost savings makes participation professionally acceptable for the medical groups. Physician governance makes ICSI professionally attractive.

CAUTIONS

The work of the USPHS Agency for Health Care Policy and Research is valuable but does not emphasize those clinical conditions of greatest interest to primary care providers and does not produce the "two-page operational guidelines" needed for implementation.

Confidentiality of information remains a highly sensitive issue. Even within ICSI, physicians fear destructive data disclosure so much that one HealthPartners group keeps individual physician performance data within the group and only reports group measurements.

COST ESTIMATES

MONEY ICSI's annual cash budget is approximately $2 million. This sum includes the salary costs for eight staff members, consulting costs (especially for information systems work), and costs for surveys and other studies done under contract.

TIME Besides such direct funding, the participating medical groups and HealthPartners will provide staff time during

1994 valued at approximately $3.5 million. Such uncompensated time consists of physician and other professional participation in guideline work groups, standing committees and the ICSI Board. HealthPartners provides uncompensated time for legal work, accounting, data analysis, human resource administration, consultation to medical groups on quality improvement, and some media relations.

OTHER ICSI maintains a modest sized relational data base with querying and tallying capabilities, but hardware and software costs are not a substantial portion of ICSI's total operating cost.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Provider Communication **MCO** United HealthCare Corp.

VALUE / OUTCOME / IMPACT

OBJECTIVES

United HealthCare (UHC), established its EDI Services Group to provide innovative software products to reduce administrative and medical costs while improving the quality and timeliness of health care delivery.

NOTABLE RESULTS

Through the development and sale of ProviderLink®, a set of electronic data interchange (EDI) transactions, UHC has realized significant cost savings by increasing productivity in claims processing, reducing staffing for status-type inquiries, and improving the accuracy of claims data.

The application of ProviderLink® has produced positive results for providers including cost savings associated with processing claims, time required for claim and eligibility inquiries, accelerated cash flow and reduced "hassle."

DESCRIPTION

KEY ELEMENTS

ProviderLink® is a non-proprietary, community-wide health information network providing interactive electronic connections (an electronic highway) among physicians, hospitals, payors and other healthcare providers. It accelerates and simplifies a provider's ability to exchange information vital to office operation.

The ProviderLink® Network and products are designed as the foundation for a total EMT/EDI solution for healthcare payors, providers and purchasers. The Network can be accessed from various hardware/software platforms such that many participants can use their existing systems and those without any technology can begin electronic medical transaction processing at low cost. Operational platforms include: practice management system integration, personal computer, mini-terminal (card swipe), and touch-tone telephone voice response.

ProviderLink® goes beyond a simple electronic courier function and enables interaction on claims matters.

Specific functional capabilities currently include:

- Multi-payor claims submission.
- Claim status inquiry.
- Referral submission.
- Referral status inquiry.
- Eligibility inquiry.
- Electronic mail.

Future capabilities probably will include clinical and other financial information.

ORGANIZATION

ProviderLink® was developed and is maintained and supported by UHC's EDI Services Group in cooperation with participating practice management system vendors, direct payers, clearinghouses and other network sponsors.

PROCESS

Initial product development focused on a robust administrative transaction set, with future development to include both clinical and financial transaction sets. For example, the clinical transaction set will include lab results and reporting and medication history, while the financial transaction set will include electronic remittance advice and electronic funds transfer. Other capabilities such as screening alerts and immunization needs will be available through linkages with other products.

POLICIES

Providers are charged a monthly access fee and transaction fees for use of ProviderLink®. UHC encourages participating payors to subsidize such costs to providers. Hardware or integration required for access to the ProviderLink® Network is the responsibility of the provider.

PARTICIPANTS

At the end of 1993, approximately 10,000 providers (physicians, hospitals, labs, ancillary services) had contracted with UHC for access to the ProviderLink® Network. The number of participating providers is increasing at the rate of up to 500 per month.

ProviderLink® is distributed by all 19 UHC owned or managed health plans covering 2.5 million members. It is also available through other participating payors and health plans.

RESOURCES

Funding for the ongoing operation and development of ProviderLink® is solely from UHC, its owned or managed health plans and revenue generated from transaction processing.

ANALYSIS

DISTINGUISHING FEATURES

ProviderLink® provides interactive claims processing as well as information "courier" services.

The Eligibility module processes and responds to 20 batched eligibility inquiries in less than two minutes and provides co-pay, coordination of benefits and primary physician information. Health plan and family information are also available. Access is available through name, member number or SSN. Historical eligibility information is stored.

The eligibility function is currently being expanded to accommodate Medicaid eligibility inquiries.

The Electronic Mail application allows the attachment of ASCII files, provides mail receipt notification, and transmits claim submission error reports from the network and from payors. User defined form templates are under development.

The Claims Submission application edits, validates, translates and routes electronic claims to designated clearinghouses or payors. Claims with errors detected at the network level are reported to the user within two hours for correction and resubmission. Claims submissions to payors are acknowledged to users via ProviderLink® EMail electronic reports if the payer has the capability. Claim entry screens include pop-up help, prompt screens choice lists and space for free-form text.

The Referral module allows creation of a referral with clinical codes which are automatically screened through protocols to produce immediate approvals with authorization numbers or pending status. Referrals can be batched and referral status can be queried.

CRITICAL SUCCESS FACTORS

Industry cooperation among all healthcare participants, the development and acceptance of industry standards for electronic transaction processing, and user acceptance of EDI technology have been critically important to the successful development of ProviderLink®.

System features important to Network success have proven to include:

The ability to integrate with various practice management systems.

Multi-carrier linkages through a single work station.

The ability to ensure confidentiality and security.

A stable, reliable yet flexible network.

Customer service.

UNIQUE CONDITIONS

UHC has had the advantage in developing and applying Provider-Link® of being able to solicit input from and monitor acceptance among its 19 separate plans and their respective provider networks in widely different markets.

LESSONS LEARNED

Providers' lack of acceptance of EDI technology can still inhibit network development. For example, some physicians and other providers remain tentative about introducing card-swipe and voice-response phone capabilities.

Sales success with physicians and other providers is based on focused attention on "what's in it for them."

OTHER ADVICE

Ensure that the base technology is reliable, flexible and expandable to accommodate future marketplace demands for advanced applications and much greater transaction volumes.

The user interface must be inexpensive, easy to use, conducive to enhanced provider work flow, and provide a single solution for all electronic medical data transaction processing needs.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Outcomes Measurement

MCO Blue Cross Blue Shield of Minnesota

VALUE / OUTCOME / IMPACT

OBJECTIVES

Blue Cross Blue Shield of Minnesota (BCBSM) is committed to using case outcomes to influence more appropriately the price and utilization of hospital services in its managed fee-for-service offerings for commercial members.

NOTABLE RESULTS

Since 1991 BCBSM has linked hospital reimbursement to patient outcomes by redistributing its hospital payments through its Illness Outcome Groups (IOG) reimbursement program. The programs risk adjusted payment method rewards quality (reduced excess adverse outcomes) and makes hospital return on charges more consistent with patient risk--a proportionately higher return for high risk cases and a lower return for lower risk cases.

DESCRIPTION

KEY ELEMENTS

The Hospital Aware Program

The BCBSM Hospital AWARE program is a long-standing and evolving combination of utilization management practices with fixed case-rate payment arrangements that now is using profiles of adverse outcomes of hospital services as a basis for negotiated payment arrangements.

As part of the Aware program, BCBSM uses 41 payment categories that consist of DRGs with similar risks of adverse outcomes and similar resource requirements to negotiate fixed payment rates with participating hospitals. Since poor patient outcomes are generally more expensive, hospitals are at financial risk for an unexpectedly high number of adverse outcomes and gain financially with fewer than expected adverse outcomes.

The Illness Outcome Groups (IOG)

The 41 payment categories developed from the Illness Outcome Group system (IOG). IOG assigns payment categories for cases and their payment maximums using data from MediQual's MediGroups severity-of-illness system. The IOG system was devel-

oped from MediQual's database of more than one million acute care hospital discharges from a representative sample of its national hospital client base.

The IOG program assigns acute care hospital admissions to one of four risk groups based on the risk of adverse outcomes:

Minimal Risk--<1% major morbidity/mortality rate,
Low Risk-->1% to <5% morbidity/mortality rate,
Moderate Risk-->5% to 15% morbidity/mortality rate, or
High Risk-->15% morbidity/mortality rate.

The IOG program builds on BCBSM's analysis of a MedisGroups-defined 1986-1990 database that showed costs for adverse outcomes were significantly higher than costs for patients responding to treatment. The average differential cost per case was increasing substantially (from $10,000 in 1986 to more than $13,000 in 1990) and had reached more than $15,000 per case in 1992.

PROCESS

BCBSM computes an expected adverse outcome rate for each of its 41 IOG payment categories based on analysis of its case data. It also computes the average charge for both adverse outcomes and for patients responding to treatment. Then it calculates the total excess costs associated with the excess adverse outcomes. For example, the total excess costs among the 31 participating Minnesota hospitals for CY91 non-cancer IOG categories was approximately $1 million.

POLICIES

Minimal risk IOG categories are paid "aggressively set rates" and higher risk categories are paid proportionately higher rates.

PARTICIPANTS

BCBSM uses its 41 IOG payment categories in negotiating payment arrangements with 36 large-volume hospitals, not with all Minnesota hospitals.

BCBSM divides the hospitals for payment purposes into four categories to reflect differences in hospital operations and community needs and then applies the 41 IOGs to two of the groups--(Group A) the 21 hospitals located in the Minneapolis/St. Paul metropolitan area, and (Group B) those hospitals of the 36 hospitals which are in Greater Minnesota that have a large volume of BCBSM business and that elect to be paid like Group A hospitals.

The other two categories of hospitals are (Group C1) the 7 hospitals in Greater Minnesota which meet BCBSM business volume thresholds and have shown significant cost/volume growth, and (Group C) the remaining 113 hospitals in the state. The IOG categories do not apply to the C1 or the C category hospitals.

DEVELOPMENT

The IOG program is part of the BCBSM Hospital Aware Program which began in 1983 when BCBSM initiated a prospective payment program with participating hospitals. Negotiated rates were set for services in a number of inpatient and outpatient categories and each hospital's payment in a category was limited to a community-wide maximum.

In 1988, BCBSM began adjusting payment maximums using data from the MedisGroups severity-of-illness indexing system. In 1991, the new IOG case mix classification system added consideration of a hospital's actual adverse outcome experience vs expected adverse outcomes.

ANALYSIS

DISTINGUISHING FEATURES

The IOG outcomes are part of a larger payment program that includes negotiated outpatient payment rates and lengths of stay incentives.

CRITICAL SUCCESS FACTORS

BCBSM worked extensively with comparative outcomes data and small area analysis for seven years before applying the IOG outcomes as part of its reimbursement arrangements.

Time was allowed for the hospitals to examine and get used to the IOG outcomes data.

BCBSM has invested heavily in obtaining and analyzing epidemiological and other population oriented data.

KEY RESULT AREAS

Tieing the IOG-derived adverse outcome measures to reimbursement makes utilization management the internal hospital issue it should be, shifting the focus from the payor to the provider where appropriate corrective action can be taken.

Aggressively set minimal risk rates are dampening hospital interest in such admissions and increasing the severity for medical admissions among participating hospitals. By properly

adjusting payment rates for health condition, hospital incentives are being changed creating greater interest in serving higher risk cases.

In just one sample hospital, "excess hospital costs" in 7 IOG payment categories during a 12-month period amounted to more than $200,000 against the average outcome expected and would be more than $800,000 against the benchmark performance level.

UNIQUE CONDITIONS

BCBSM is committed to managed care and has been for some time.

Minnesota purchasers of health care are buying based on value and forcing greater value from plans.

LESSONS LEARNED

Ensure strong physician involvement in all such reimbursement initiatives. Let them see and critique the elements and concepts and ensure them a seat at the planning and development and operations tables.

Develop and introduce such payment and outcome-related initiatives as a partnership, not as an adversarial program.

Be receptive to change as the program and process evolves.

Total value should be sought, not just increases in efficiency and reductions in price.

DEVELOPMENT PLANS

Great opportunity exists for improvements in hospital performance based on the enormous range in the ratio of observed to expected adverse outcomes for under-65 non-cancer admissions in 1992 among 15 of the 31 BCBSM participating hospitals--from 2.8 times the expected adverse outcomes at one hospital to as low as 10% at another.

A per-case reimbursement system without a length-of-stay incentive is being developed for use shortly.

BCBSM is sharing data with hospitals to help identify attainable performance benchmarks and processes that assist or hinder such performance.

BCBSM is using MedisGroups, claims and other databases to support a process of continuous feedback and evaluation with hospitals. Reports will include clinically detailed adverse outcomes information about individual patients.

COST ESTIMATES

TIME The IOG outcome initiative is part of and a result of a 7-8 year effort.

MONEY BCBSM has been making large investments in the development of its data systems during the last several years.

The cost of the IOG-related activities to date, including licensing fees and staff time (approximately 1 FTE), amounts to approximately $250,000.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Outcomes Measurement

MCO Harvard Community Health Plan

VALUE / OUTCOME / IMPACT

OBJECTIVES

The Harvard Community Health Plan (HCHP) advances its commitment to quality and continuous improvement by:

Assessing and comparing the quality of its care against standards and external benchmarks, including assessments of variation in the care process over time or across sites, within the HCHP network,

Measuring the satisfaction of its members, and

Developing, evaluating and implementing new measures to assess the quality of care and its impact on members to guide decisions by clinicians and patients.

NOTABLE RESULTS

Approximately 40-50 quality and outcomes measurement studies are conducted at the HCHP corporate level each year. Sample results of such activities include:

Incorporation of improvements in the management of menopause in a large women's health initiative based on a study of women's and clinicians' needs.

A broad strategy for improving patient education, treatment and the functional status of adult asthmatics based partly on survey results about patient knowledge, symptom status and functional limitations.

Efforts to improve clinical indicators, including hypertension, cholesterol, mammography rates, and pediatric immunization rates, based in part on HCHP studies of such indicators.

DESCRIPTION

KEY ELEMENTS

HCHP's clinical quality and outcomes measurement activities include:

Clinical Indicators--
These measurements compare quality of care to standards or benchmarks.

Examples are annual rates of mammography screening, C-section delivery rates, pediatric immunizations, psychiatric readmissions, diabetic annual ophthalmologic visits, cholesterol screening, inhaled steroid use among severe asthmatics.

Clinical Outcomes--
HCHP is evaluating the usefulness and validity of these new types of measurement for assessing quality of care. They include measurements of functional status, symptom status and health-related quality-of-life factors which reflect the impact of care on patients' health and well-being.

Examples are post-partum functional status of women with different delivery types, missed work-time and limitations in functioning due to asthma, symptom relief following urinary incontinence procedures, functional status after psychiatric hospitalizations.

Patient Satisfaction--
These measurements identify opportunities to improve care delivery.

Delivery processes examined include labor and delivery, inpatient hospital stays, outpatient visits to primary care departments, ambulatory mental health care, and management of menopause.

Other measurement activities contributing to such secondary objectives as:

Identifying predictors of outcomes.

Estimating the likely impact of different improvements on satisfaction.

ORGANIZATION

Three departments in the corporate Medical Director's Office (MDO) work closely together to measure the key clinical indicators, clinical outcomes and patient satisfaction described. These measurements indicate the quality of care provided by HCHP overall.

Substantial decentralized measurement activity also occurs in local departments, health centers, medical groups, and specialty areas such as surgical specialties. Such local

measurement activities are typically focused on local quality monitoring or improvement efforts.

HCHP also participates in collaborative quality measurement efforts. For example, HCHP is a member of the Digital Equipment Corporation Clinical Indicators Consortium, which includes several other New England managed care companies and is dedicated to developing clinical indicators and sharing results. HCHP also is a member of the Managed Health Care Association Outcomes Consortium which consists of 15 purchasers and 18 managed care companies attempting to develop and evaluate measures of functional status that are useful and valid for assessing and improving health care.

PROCESS

The MDO quality and outcomes measurement activities are conducted by teams of clinicians, methodologists, and operational measurement staff working closely with "customers"--the representatives of the targeted clinical specialty area. For example, a study of the management of breast cancer includes a practicing oncologist. Measures are defined based on the clinical literature and customer input.

PRODUCTS

Each MDO measurement activity results in a brief, typically graphical report that is distributed to the appropriate clinicians and clinician-managers. Sometimes, study results are published or externally reported to advance the quality measurement process or to establish public benchmarks for comparison of performance.

DATA USED

Virtually all data sources available within HCHP are used in the measurement activities, including:

Patient surveys.
Clinician surveys.
Claims information systems.
Pharmacy utilization databases.
Mental health utilization databases.
Automated ambulatory encounter systems.
Laboratory test tracing systems.
And others.

RESOURCES

Most (80%) of the MDO quality and measurement activity is funded through the MDO annual operating budget as part of HCHP's commitment to implement a comprehensive clinical quality measurement system. The remaining 20% is provided by

the HCHP Foundation as part of its mission to support the development and dissemination of systems and technologies for assessing and improving the quality of health care.

ANALYSIS

CRITICAL SUCCESS FACTORS

MDO designs its studies to be sound and free of systematic sampling bias and confounding measures.

MDO assesses the quality of its data and confirms its validity, especially when using data sources that were not originally intended to support research, e.g. claims and pharmacy databases.

Measures of quality are clearly defined so the least interpretation is needed to understand the meaning of results--quality is acceptably high or needs improvement. MDO defines its measures based on clinical literature, benchmarks or widely used, well validated measurement instruments. MDO also works with customers from the beginning to define indicators of poor and desirable performance to be reported.

LESSONS LEARNED AND CAUTIONS

Solicit the help and input of representatives from key clinical constituencies at the outset of measurement design.

Ensure that the data quality and study design are sound.

Rely on the clinical and methodological literature for widely accepted definitions of measures and the most valid tools to ensure acceptable and credible results.

COSTS ESTIMATES

A considerable amount of quality and outcomes measurement activity at HCHP occurs at local sites and within specific departments which is not specifically identified and budgeted.

STAFF

Approximately 45 FTE staff conduct the corporate MDO quality and outcomes measurement studies.

MONEY

The total annual budget for quality measurement in the corporate Medical Director's Office is $3-4 million.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Screening and Prevention MCO CIGNA HealthCare of AZ

VALUE / OUTCOME / IMPACT

OBJECTIVES

CIGNA HealthCare of AZ (CIGNA-AZ) is committed to preventing illnesses and injuries and supports the early diagnosis and treatment of illnesses. It began the Health Evaluation and Lifestyle Planning (H.E.L.P.) program in 1983 as an extension of two earlier screening programs to evaluate well members' present state of health, to identify health risks including potential or unrecognized medical problems, and to recommend and offer wellness and health maintenance activities. Members under a physician's care undergo regularly scheduled screening by their primary physician for common diseases.

NOTABLE RESULTS

The CIGNA-AZ prevention and screening activities are strong positive marketing features with corporate buyers because of their long-term contribution to cost control.

Mammography screening has resulted in a significant shift in the stage of breast cancer at diagnosis from stages 3 and 4 to stages 0, 1 and 2. While the number of breast cancer cases has increased, the costs of treatment have decreased.

Screening for, recognizing and treating hypertension and hypercholesterolemia do prevent serious vascular problems, and increasing seat belt use and reducing smoking result in health gains, but CIGNA-AZ has not attempted to document its experience.

Some screening activities are inexpensive, safe and effective, such as pap smears, but their quantitative cost effectiveness depends on the value placed on a woman's life. Other screenings, such as occult blood screening for colon cancer, are inexpensive and safe even if of questionable value. CIGNA-AZ does not know if the sum total of its prevention and screening activities has been cost effective, but CIGNA-AZ believes that substantial numbers of deaths have been averted and postponed.

DESCRIPTION

KEY ELEMENTS

<u>Wellness Screening for Apparently Healthy Members</u>

CIGNA-AZ's H.E.L.P. program includes a health-risk appraisal which identifies an individual's lifestyle risks and estimated

mortality compared to national averages and measurements of cholesterol and HDL cholesterol levels, blood sugar, blood pressure, pulse, weight and height.

All participants over 40 are tested for hidden blood in the stool, and some participants based on age and sex will have additional testing that could include an electrocardiogram, chest x-ray, pulmonary function, pap smear and mammogram. Tests for cardiovascular fitness using a bicycle ergometer, muscle strength and flexibility are also performed on participants under 65 unless contraindicated.

A complete physical examination is performed on all participants including pelvic, breast and rectal examinations when appropriate.

All laboratory, fitness test and physical examination results, physical measurements, and medical history are reviewed with participants and a personal report is given to them. It includes recommendations to help them achieve the best level of health possible.

Health education programs to influence lifestyle risks may be recommended. A variety of health education offerings (some free and others with a small hourly fee) are available through meetings at approximately fifteen sites in the plan's area and through audio cassettes. Current topics include:

> Assertiveness Training, Cholesterol Control, Exercise You Can Do, Holiday Weight Control, Holiday Stress Management, Nutrition for Seniors, Self Esteem, Smoking Cessation, Stress Management, Weight Control, Asthma, Breast Feeding, Cardiac Rehabilitation, Childbirth, Community Information, Diabetes, Help Exam, and Infant Care.

Early Diagnosis of Common Diseases

People using the healthcare system are the responsibility of their primary physician and are screened by that physician for early diagnosis of common diseases on a schedule developed through a CQI process by the Departments of Family and Internal Medicine and adopted by the CIGNA-AZ medical staff.

ORGANIZATION

The Wellness Services Department operates the H.E.L.P. program, delivers educational programs and operates a freestanding work-based Wellness Program. It is staffed by physician assistants and nurse practitioners. The director of the Department reports to the CIGNA-AZ Medical Director.

PROCESS

If abnormalities are discovered through the H.E.L.P. program, the patient is referred to their primary physician or directly to a specialist. On a return visit, the patient is counseled by a physician assistant and referred as appropriate to specific lifestyle changing programs.

Compliance with the screening policies is regularly evaluated through peer review of charts performed monthly such that 55 charts are reviewed annually for each physician. During one hour each month a grand round of charts among 17 health centers occurs.

Five medical records for patients who have had a minimum of two outpatient visits in the past year are selected randomly by computer and each provider anonymously reviews five records of a peer by answering a standard set of questions about the form and content of the records.

Judgements are made of the appropriateness of the evaluation, treatment, and follow-up, evidence of basic screening for disease and precursors of disease; clarity and legibility; format; lists of problems, medications, and allergies; and communications with consultants and referring physicians.

Results are scored with weighting of prevention, screening and clinical quality of care. The results are reviewed by Quality Management and shared with clinical departments through Department Chairpersons. Deficiencies are relayed to clinicians by the Physician Quality Manager via voice mail. Department Chairpersons directly discuss with each physician low scores and comments provided by a peer reviewer.

The percentage of members screened is calculated through the medical record audits and is used to track provider performance and compliance. Ultimate success is more difficult to measure. Disease rates in the member population, stage of breast cancer at diagnosis, hospitalization rates by disease and other measurements are used to demonstrate the effectiveness of prevention.

POLICIES

Encourage members to assume the major role in determining the quality of their personal health through a guided program of wellness and health maintenance.

Encourage screening for the early diagnosis of disease whenever practical.

Recognize and respond to the two different populations being served--the well who rarely use the healthcare system and those others under the care of their primary physician.

Do not just treat illness; work to keep members healthy.

PARTICIPANTS

Physician assistants or nurse practitioners conduct the wellness age-based disease screenings and physical evaluations for healthy members.

All providers comply with the CIGNA-AZ screening policies and participate in the peer review process which emphasizes prevention, screening and clinical quality.

RESOURCES/PRODUCTIVITY

The Wellness Department's activities are budgeted directly. The costs of screening by clinicians, the peer review of medical records, and the participation of the laboratory and radiology services are considerable but are absorbed as part of a health care center's budget. Similarly, the cost of work by Quality Management and the health care centers to select, collect, and distribute medical records for peer review and to maintain the peer review data base is included in the health care center's budget.

DATA USED/PRODUCED

A set of detailed protocols that reflect current opinion on screening was developed by a Screening Guidelines CQI Committee, a multi-disciplinary group of CIGNA-AZ with representatives from primary and specialty care areas. The Screening Guidelines are minimum, basic screening guidelines for well, low risk adults aged 18 to 65 regarding blood pressure, cholesterol, breast examination, mammography, occult blood in stool, digital rectal examination, flexible sigmoidoscopy, and papanicolaou smear. Other guidelines have been developed for well child care, for geriatric patients, and for members at high risk for cancer (breast, cervical, prostate, colon) and for cardiovascular disease.

Data for accessing provider compliance come from the peer review of chart audits. It is expected that all members participate in the preventive measures prescribed in the policies adopted by CIGNA-AZ providers. Compliance has been increasing and now more than 80% of CIGNA-AZ members participate in the screening activities. Gaining the participation of members who do not use the medical system until they are ill remains an important problem.

ANALYSIS

DISTINGUISHING FEATURES

By using a peer review system that includes all providers, CIGNA-AZ has ensured that all providers know and accept the screening and other policies; the providers helped develop the policies and they review compliance with them.

CIGNA-AZ has achieved an amalgamation of routine health care, disease screening and lifestyle evaluation, and illness care that is generally accepted by both providers and patients.

The routine screening of well people by physician assistants and nurse practitioners, which was begun before 1980, provided a basis for the expanded CIGNA-AZ screening and wellness activities. A separate Department of Wellness Services was established to institutionalize further the screening and wellness programs.

CRITICAL SUCCESS FACTORS

The monthly, universal peer review of physician compliance with the screening guidelines has made their application a routine part of clinical practice.

KEY RESULT AREAS

The H.E.L.P. program is a service to many members who rarely use the healthcare system (the well) and it gives them a valuable benefit and a good reason to re-enroll.

UNIQUE CONDITIONS

CIGNA-AZ resulted from the merger of two staff model HMOs established in the early 1970s. Both had traditions of screening for disease and identifying risky lifestyles. The best of both systems formed the basis for even greater program activities.

LESSONS LEARNED

Physician assistants and nurse practitioners are better providers for evaluating well people. Few physicians enjoy doing routine screening on healthy people. Most get their practice satisfaction from diagnosing and treating illness and accidents.

Even with CIGNA-AZ's long history of screening and wellness, some physicians still believe that prevention is not cost effective, although this attitude continues to change. They judge that the costs to screen for disease are too great for the few cases discovered early enough for effective treatment,

and they are not convinced that changing people's risky lifestyles significantly extends quality life.

A health plan can provide a well managed prevention program--both screening and risky lifestyle identification--and be profitable.

CAUTIONS

Set up systems that make it easier to do screening than not to do it. Do not expect busy practitioners to practice prevention if it is too cumbersome and time consuming.

Resist the financial managers who say prevention is too expensive, the marketeers who want Yoga and personality development programs, and physicians who believe they are too busy to practice prevention.

COST ESTIMATES

TIME

A small amount of providers' time is spent ordering and interpreting screening tests, and providers' time is given through the monthly hour devoted to the peer review of medical records and participation in the development of guidelines based on outcomes.

Developing the medical record review system was very time consuming; keeping it functioning now takes approximately 0.5 FTE. Getting the results back to the medical staff can be as short as five minutes or as long as an hour each month for the department chairs, chiefs of staff and section heads who devote a portion of their time to discuss results with clinicians.

MONEY

The costs of prevention are included in each provider's time, support of a number of full-time PAs and nurse practitioners, the laboratory and radiological tests, part of the peer review of medical records and the many medical support nurses, appointment clerks and receptionists.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Special Population (Elderly) Care Coordination **MCO** HealthPartners

VALUE / OUTCOME / IMPACT

OBJECTIVES

HealthPartners has had for several years a focus on providing community-based care to very elderly members to enhance the independence and quality of life of the members while managing the total cost of the health and related services they use. HealthPartners has 22,000 members enrolled in two risk-based Medicare programs--6,200 in a Social HMO (SHMO) and 16,000 in a risk-based TEFRA Medicare program.

NOTABLE RESULTS

The SHMO has decreased the rate at which members are placed permanently in nursing homes. Lessons have been learned about case targeting and management which have enhanced the SHMO operation and have been transferred to the care of other Medicare beneficiaries served by HealthPartners. The SHMO also is a successful demonstration of the integration of acute and chronic care for a mixed population of older persons using existing resources.

DESCRIPTION

KEY ELEMENTS

A SHMO is a congressionally approved demonstration allowing the Medicare Supplemental Benefit package to include a long-term care program and requiring HMO contracted services for Medicare beneficiaries. The program is designed to maintain the elderly in their own homes as long as possible through case management and other services. The HealthPartners SHMO, one of four SHMOs nationwide, currently serves 6,200 members, 700 of whom are nursing-home certifiable and 200-300 who are at risk of becoming nursing-home certifiable.

The Program maintains a prevention orientation by focusing on the members at risk and being proactive in finding such patients.

The SHMO provides the normal TEFRA HMO services plus prescription drugs, preventive dental services and community-based long-term care services (including nursing home respites, homemaker services, active volunteer services and case management services). The annual community-based long-term care benefit is $8,500 with the member paying 20% in coinsurance.

A purposefully developed Volunteer Program is an important program support element. Starting with 1.5 FTE support staff for the seniors program only, the Volunteer Program now has 4.5 FTE support staff and supports the entire Group Health System. Senior services include Seniors At Home (100 volunteers and 1.5 FTE support) which provides friendly visits, cards, etc., case management support through chaperoning for clinical services, and Medicare Hospice services such as sitters, clerical support, and special attention for the "socially isolated."

The HealthPartners SHMO provides substantial prevention oriented services. A sub-group within the overall Health Education program focuses on seniors. Drug screening, analysis and information programs involve PharmD staff and primary care physicians. Health education activities address such matters as living wills and advance directives. A class structure and approach is used to address such topics as falls, pharmacy and taking medications, exercise, etc. A major immunization initiative is maintained. Sponsors of elderly members are informed through a large annual health fair that among other things presents information about the treatment and support options available for seniors through HealthPartners.

ORGANIZATION

While the TEFRA HMO model provides some case management especially catastrophic case management, the HealthPartners SHMO has 19 persons actively involved in managing cases. The licensed nurses and social workers providing case management do not also provide hands-on care to the members.

PROCESS

The case management process is well organized and intense. The same case manager is assigned to both a husband and wife and stays with them over time.

The case management decisions are reassessed through telephone calls and home visits every three months during the first year in the program. Once in the program, the member stays in it until they have to go to a nursing home permanently because the community services just cannot support them any longer.

A multi-disciplinary clinical team conducts weekly case conferences that include pharmacy review, geriatric medical review and involvement of mental health and hospice teams.

POLICIES

Mainstream the care of the elderly but add special services as needed, e.g. geriatricians, dedicated case managers, etc.

Blend the financing available from both Medicare and Medicaid to best serve the elderly patient--allow spend down to the Medical Assistance level then get no-premium status with state capitation to cover SHMO premiums and coinsurance.

PARTICIPANTS

A multi-disciplinary Geriatric Division that includes all the care delivery and administrative aspects of operation has been created by HealthPartners to serve both the SHMO and TEFRA beneficiaries. The Division includes 8 board certified geriatricians, 4 geriatric nurse practitioners, a Division Chairperson, a manager, representatives from pharmacy, discharge planning, volunteer services, dental, case management and other administrative areas.

RESOURCES/PRODUCTIVITY

Indicators of program performance include:

Case management case load...	100 members (frail/at risk)
Case management costs.....	$15 pmpm
Operating budget.....	$40 million ('92)
Operating shortfall.....	$3 million ('92)
Community-based LTC benefit.	$22 pmpm

1992--	SHMO	TEFRA
Inpatient Hospital days/1000	1,774	1,210
ALOS-Hospital.....	5.3	5.3
Admissions-Hospital.....	336	227
Nursing Home-Skilled Days/1000	1,001	516

DATA USED/PRODUCED

A case manager produces a 38 page home assessment for SHMO members. A one page computerized summary of this report is then used as the basis for a case conference and to communicate directly with the primary physician. The one-page Home Assessment Report summarizes information into five sections:

Demographics--Member identification, physician, emergency contact, location, type of residence (house, apartment, etc.)

Medical Conditions--Information such as recent hospitalizations, diseases (e.g. diabetes, chronic obstructive pulmonary disease, etc.)

Functional Deficits--e.g. shortness of breath, arthritis

Medication Lists--Including OTC drugs

Trouble with IADLs and ADLs and Family Support Structure--e.g., cannot go down stairs to do laundry

The Home Assessment Report is linked by computer to scheduling software and is printed when a visit is scheduled or chart is pulled and is sent to the physician with the Medical record. It also is printed at Emergency Room encounters and at affiliated hospitals.

ANALYSIS

DISTINGUISHING FEATURES

A major challenge for HealthPartners is working in the appropriate care of 22,000 seniors who have much more chronic illness into the care of the 230,000 other members who are well or generally responsive to clinical interventions and who move quickly in and out of the care system.

CRITICAL SUCCESS FACTORS

HealthPartners removed the drug benefit formerly offered as part of the TEFRA Medicare contract and left it in the SHMO. This change caused a shift of high risk elderly patients to the SHMO which was better able to care for them.

Through its CQI process, HealthPartners came to examine and improve drug use review, care coordination, patient instruction and improved case management techniques.

The HealthPartners program has been aided by the CEO's appreciation of the special nature of geriatrics and by the leadership of its lead geriatrician physician who has earned the respect of his physician peers.

Case managers act as patient advocates and gate-openers to community services. They now are physically moving out to operate in the clinics in conjunction with home care nursing, discharge planners, etc.

Geriatricians are used cost-effectively in the outpatient setting. There are not enough geriatricians to do all senior care, so they are used to shift primary care physician thinking to chronic concerns and away from a drive to maintain or return full health through curative interventions. They do geriatric assessments and function through a team approach to maximize their impact. Their services are marketed to primary care physicians as a tool that can be used on a referral basis to get a consult without disrupting the primary physician's patient relationship. Their availability is widely broadcasted for screenings (multi-drug, care giver, nursing home consideration, recent nursing home discharge) and inpatient

assessments (evaluation of the risk of falls, pharmacy compliance, and readiness for discharge to sub-acute, home or other settings).

KEY RESULT AREAS

HealthPartners has found that as it uses more long-term care services it uses less high cost services. Furthermore, the SHMO prevents people from going into Medicaid because there is considerably less spend-down. Thus, the program is saving money for the state since without it 300 elderly would go to nursing homes and approximately 350 would slip into state-paid nursing home care.

Member satisfaction is higher among seniors enrolled in the SHMO. Sixty-nine percent of SHMO members said they would recommend the plan to friends or relatives vs 60% of TEFRA members.

The HealthPartners approach produces more appropriate care for the SHMO members using the same physicians and hospital facilities used for other members.

Even though SHMO patients (being high risk, frail and the eldest) use hospital services overall more than other patient groups, their utilization of hospital services is reduced for some specific categories that can be influenced by the SHMO service array., e.g. skin care and fall and fracture utilization are reduced.

Admissions for alcohol and other substance dependency are increased because of better case identification and general under-reporting of such needs in other populations.

Although the admissions are higher, the SHMO length of stay is the same or less than that for the other elderly member population, even though the SHMO members are older and more risky.

UNIQUE CONDITIONS

Minnesota and the counties in the Minneapolis area are unusually rich in services for seniors.

All Medicaid patients within certain urban/suburban counties must enroll in managed care delivery systems.

The HealthPartners Group Health component started as a cooperative so a strong and widespread volunteer spirit and program was a part of the operation from the beginning.

LESSONS LEARNED

Geriatricians in short supply are better used as consultants to primary care physicians to enhance their geriatric abilities.

Volunteer programs are not free; they do great good but they cannot run themselves. They provide a type of support different from what the corporation can provide.

Not all services will work as planned. A free home safety check program was halted because the seniors clearly did not want it.

Seniors respond well to information and education programs; they are cooperative and motivated.

Seniors will use a newsletter if they see it is from "their" health care system However, staff cannot be passive; they must be proactive in a non-classical sense. They must consider risk, medical complications, functional abilities and other factors through active screening programs and then vigorously pursue services. For patients over 75, for example, memory testing and assessments of the ability to bathe oneself are just as important as blood pressure testing. To get the necessary data, staff must ask many more and different kinds of questions.

A geriatric program's success is greatly influenced by strong physician leadership that includes peer support of colleagues and a willingness to be outspoken.

Community-based long-term care services can be budgeted and services can be targeted and managed to meet that budget.

CAUTIONS

Physicians cannot be simply forced to treat elderly differently; they must be assisted and guided to buy into the different approaches.

Beware of "just adding on" the special services to seniors. Success has been derived by HealthPartners through consciously and organizationally dedicated staff for the seniors initiatives, not just add-on assignments for other staff.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Technology Assessment **MCO** The Prudential

VALUE / OUTCOME / IMPACT

OBJECTIVES

The Prudential strives to administer all of its managed health care plans such that they provide coverage of medical technologies that have proven to be safe, effective and appropriate as part of its overall goal of providing quality care. The Prudential operates a Technology Assessment Program, started in 1985, to make informed decisions in a systematic way about the safety and efficacy of medical technologies and their use by managed health care plans and traditional indemnity plans.

NOTABLE RESULTS

Through its Technology Assessment Program, Prudential provides its managed health care plans throughout the country with well documented guidelines for the provision of quality medical care.

The Technology Assessment staff at Prudential responds to approximately 2,000 requests annually for guidance regarding what constitutes quality and appropriate medical care in specific clinical situations. Approximately 50 of these requests annually result in the preparation of formal technology assessments, including appropriateness guidelines.

DESCRIPTION

KEY ELEMENTS

Prudential's Technology Assessment Program produces scientific and objective assessments of medical technologies. The process includes an extensive data gathering effort, analysis by clinical staff, review by many Medical Directors, and final decisions by a multi-disciplinary advisory committee.

The data and information gathering process includes:

Identification of technologies to be reviewed.

Review of the published, peer-reviewed medical literature.

Collection and review of position statements and technology assessments from professional medical specialty and sub-specialty organizations.

Collection and review of policies of federal health agencies (FDA, AHCPR, HCFA, etc.).

Discussions with outside expert consultants not affiliated with Prudential, including at times the unpublished results of clinical trials.

ORGANIZATION

The Technology and Clinical Practice Assessment Unit within the Health Care Operations and Research Division of Prudential's Group Department conducts the technology assessments. Its parent Division is engaged in diverse activities related to managed care operations. The Unit's staff consisting of 6 RNs, 5 technical specialists in medical claims, a Pharm. D. and a Manager report to a physician who is Vice President of Medical Services within the Health Care Operations and Research Division.

PROCESS

The data and information collected about a type of medical technology is compiled, critiqued and analyzed by a Technology Assessment staff member who then drafts a written assessment of the status of the technology and a recommendation about its coverage. Assessments usually report one of three types of findings about the technology:

It is scientifically proven to be safe and effective and constitutes a generally accepted component of standard medical care,

It is still experimental or investigational and therefore clinical evidence of its safety and efficacy is not available, or

A combination of findings such as its being a generally accepted component of standard medical care but not yet scientifically proven to be of value when compared with conventional or standard treatment.

The Vice President for Medical Services reviews the staff member's assessment and recommendations about coverage of the technology and concurs with, modifies or rejects them. An assessment of a technology can not proceed without the approval of the Vice President for Medical Services.

Technology assessments and coverage recommendations then are circulated for review and comment to Prudential Medical Directors company wide.

The Prudential Technology Assessment Advisory Committee has final authority to approve a technology assessment and coverage recommendation previously reviewed by Prudential Medical Directors and endorsed by the Vice President for Medical Services.

The Advisory Committee membership includes representatives of a broad spectrum of functional areas within Prudential's Corporate office, including Underwriting, Claims, Executive Management, Pharmacy, Marketing, Contracts, Medical and Law sections, and both medical and claim field office representatives.

POLICIES

Prudential's Technology Assessment Program addresses both new and existing technologies of all types--medical, surgical, diagnostic, drugs and devices. Generally, a technology is chosen for the formal assessment if it meets one or more of the following criteria:

Clinically controversial.
High frequency.
Widespread.
Subject to significant media or legal attention.

PRODUCTS

The products of the Prudential Technology Assessment process are documents entitled Medical Technology Evaluation and Coverage Statements (M-TECS). These M-TECS are reports prepared in a standard format that document the status of the technology in question based on the research and analysis of the Technology Assessment process. If the M-TECS are documenting a technology that is to be covered by Prudential, the M-TECS will include the guidelines for coverage and appropriate use of the technology.

ANALYSIS

DISTINGUISHING FEATURES

When started in 1985, the Program led the way in developing a formal, standardized and objective process for coverage and application decisions about medical technologies.

The Technology Assessment Program incorporates input from Medical Directors and others throughout Prudential prior to

the assessment of a technology and the implementation of a proposed position regarding a technology. This process ensures consideration of current medical practices, and it identifies technologies for assessment that are relevant to local plans. It also enhances the acceptability of the guidelines ultimately developed.

CRITICAL SUCCESS FACTORS

The scientific rigor of the Technology Assessment Program has been critically important to its success.

KEY RESULT AREAS

The Technology Assessment Program is linked to cost and reimbursement concerns and thereby creates appropriate pressures to limit the dissemination and use of new technologies until an evaluation of their risks, benefits and cost is completed.

The Program provides the foundation for:

Clinical practice guidelines for managed care.

Claim payment guidelines for traditional indemnity plans.

Utilization management guidelines.

Quality measurement and quality improvement activities.

It has resulted in more consistent decision making about coverage under traditional insurance plans and more consistent application of clinical appropriateness guidelines among managed care plans. Such increased consistency has enhanced client satisfaction and reduced exposure to claims of arbitrary and capricious actions.

LESSONS LEARNED

As its Technology Assessment Program matured, Prudential recognized the need to move beyond published, peer-reviewed medical literature as the sole source of information to guide its assessments. Examinations of current practices, as-yet-unpublished clinical trial data, and expert opinion were gradually incorporated into the process.

CAUTIONS

When trying to take advantage of the information and views of outside consultants, be sure to choose expert consultants, not just very active local practitioners. Furthermore, ensure that such consultants are engaged in a manner that preserves

their independence and avoids even the semblance that they are hand-picked and controlled by the organization.

Be careful to determine whether consultant opinions are just opinions that are at odds with scientifically established literature. Also be prepared to deal with different consultants expressing divergent opinions on the same set of facts.

COST ESTIMATES

STAFF

Prudential employs a staff of 11 full-time and two part-time persons to produce technology assessments and to answer inquiries at the national level from customers about coverage, utilization and appropriateness.

MONEY

Prudential's Technology Assessment Program costs approximately $1 million annually excluding time and effort contributed by field Medical Directors and claims technicians, time volunteered by the TA Advisory Committee, etc.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Technology Assessment

MCO Harvard Community Health Plan

VALUE/OUTCOME/IMPACT

OBJECTIVES

The Harvard Community Health Plan (HCHP), through its Committee on Appropriate Technology (CAT), supports the clinical practice's management of the use of technology to achieve high quality and cost effective care.

NOTABLE RESULTS

During the last year CAT reviews resulted in coverage decisions and guidelines for seven advanced and costly technologies:

Autologous bone marrow transplant for advanced breast cancer,
Interferon 1-beta for multiple sclerosis,
Excimer laser treatment for refractive error,
Alglucerase for treatment of Gaucher's disease,
Biosynthetic growth hormone,
Sumatriptan for treatment of migraine, and
Recombinant Factor VIII for treatment of hemophilia.

No technologies have been totally rejected by the CAT, but some have been rejected for certain situations and approved for use in others. One technology, excimer laser treatment, has not been rejected as inappropriate care but has been excluded from coverage by HCHP. Some financial savings are being realized as evidenced by the saving of $250,000 during the first year and expected similar savings on a continuing basis by avoiding the inappropriate use of biosynthetic growth hormones.

DESCRIPTION

KEY ELEMENTS

The CAT guidelines instruct HCHP staff regarding appropriate candidates for a particular treatment. They also may describe processes to be followed in reviewing and evaluating the application of a treatment in a particular case, such as case review by a special team prior to treatment.

For example, a team review is required for cases proposing the application of growth hormones or alglucerase,

and an oncologist must review the use of bone marrow transplant in females with advanced breast cancer who choose not to enter a clinical trial.

Key elements of HCHP's technology assessment process include:

HCHP identifies technologies for review.

CAT formally analyzes evidence and the recommendations from an expert panel.

CAT decides policy and develops guidelines if technology is to be covered by HCHP.

CAT assesses financial and operational implications.

HCHP publishes policy and process for use.

ORGANIZATION

CAT is a working unit within the Corporate Medical Director's Office and is chaired by the Associate Medical Director for Clinical Quality Management. Other members include the Medical Directors from HCHP's three divisions, the Chairperson of the Corporate Formulary Committee, the Chief of Surgery and the Director of Benefits and Contracts Administration.

Two staff members from the Department of Clinical Quality Management in the Medical Director's Office (a 0.25 FTE with a doctorate in health care policy and a 0.5 FTE with an MBA specializing in health care) support the work of the Committee and coordinate the technology assessment at HCHP.

PROCESS

Identification of Technologies--

New technologies are brought to the attention of CAT by Medical Directors, individual clinicians within sub-specialties or others. They may also be identified through a survey of new and emerging technologies distributed to all specialists. Technologies are given priority for review if safety and efficacy are unclear, they are high volume or high cost, or their advantage over standard practice is unclear.

Review of Evidence--

CAT staff, working with a physician who has appropriate expertise, formally review the evidence regarding the safety and efficacy of the new technology compared to the current standard treatment. They thoroughly review the literature, prepare formal evidence tables, summarize clinical, ethical, and cost issues, and assess the standard of practice in the community. Summary information from outside sources is also considered,

including information form the Teminex project of the HMO Group and ECRI (Plymouth Meeting, PA), two commercial sources of technology reviews.

Expert Panel Recommendations--
A panel of expert clinicians from HCHP is convened to consider the evidence assembled by the staff and to guide further work required to complete the analysis. The expert panel meets one or more times to review the evidence, to discuss the relevant issues, and to make recommendations to CAT regarding the safety and efficacy of the new treatment or product and whether CAT should recommend its coverage.

Policy Decision--
CAT considers the recommendations of the expert panel, which is usually presented by the lead clinician on the expert panel. CAT makes its decision about coverage based on the expert findings and recommendations and ethical, legal and other operational considerations. If CAT decides to cover the technology, it then formulates and develops guidelines and processes, such as an additional specialist review or presentation to a review committee, for the application of the technology.

Financial, Operational and Other Reviews--
After CAT decides to cover a technology, it may then determine the implications for financial operations, rates and benefit contracts. It also reviews operational constraints that may affect the implementation of the technology and recommends steps to ease policy dissemination and implementation.

Policy Publication--
The policy regarding coverage of the technology and the process governing its use are published in the "Medical Director's Letter" distributed to all HCHP physicians.

POLICIES

CAT reviews new treatments, including surgical and medical procedures, and some expensive drug therapies. CAT makes coverage decisions based on assessments of safety and efficacy, effectiveness (when possible), cost, ethics, and value compared to the standard and alternative therapies. CAT is not involved in equipment purchasing decisions unless they represent the introduction of a new treatment modality.

ANALYSIS

DISTINGUISHING FEATURES

HCHP's technology assessment process actively involves the highest level of clinical managers, not alternates or volun-

teers. Consequently, coordinated decisions are made on safety and efficacy in the context of other important factors. Participants are keenly aware of the resource tradeoffs made necessary by technology coverage decisions and the operational implications of such decisions.

CRITICAL SUCCESS FACTORS

The HCHP technology assessment process explicitly acknowledges the value of both clinical evidence and non-clinical factors in decisions to adopt new technology. It includes formal evidence-based analysis of published research even when a decision may be guided by other considerations.

By including clinicians (beyond committee members) at all stages of the process, HCHP facilitates implementation of new technology policies. Relevant specialists are contacted early and involved through the expert panel evaluations, so decisions are more credible and readily accepted by staff physicians.

LESSONS LEARNED

The technology imperative is still strong and may impede evidence-based technology policy making. CAT must struggle to make evidence-based decisions in a competitive insurance environment and when the emotion of the courtroom may overturn a scientifically rational decision not to adopt a new or experimental technology.

DEVELOPMENT PLANS

Ongoing and upcoming technology assessments scheduled for CAT focus on:

Simultaneous pancreas and kidney transplants,
Indications and outcomes for liver transplantation,
Insulin pump for control of diabetes, and
Follow-up colonoscopy.

National promotion of the use of scientific evaluations (beyond the scope of current FDA review) as a basis for technology adoption policies and more national guidance on resource allocation would be useful support to health plans now working individually to make such decisions and tradeoffs for their own patients.

COST ESTIMATES

The resources for technology assessment are budgeted through the Office of the Corporate Medical Director and include 0.75

FTE staff. The process is also supported by the time volunteered and diverted by the clinicians who participate.

The time and effort for each technology assessment vary widely based on the particular technology, but the efforts to date have consumed between 20 to 160 work hours (not person hours) and have taken between one and six months.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Utilization Management: Clinic-Based Program

MCO Blue Plus of Minnesota

VALUE / OUTCOME / IMPACT

OBJECTIVES

Blue Plus of Minnesota (Blue Plus-MN, a Blue Cross Blue Shield of Minnesota health plan) wanted to assist primary care physicians to manage the utilization of health care resources more appropriately. Blue Plus-MN added to its traditional utilization management programs an analysis and support program for primary care groups (called clinics in Minnesota) participating in its Blue Plus-MN plan to help them improve their utilization patterns and practices.

NOTABLE SAMPLE RESULTS

A clinic with an average of 4,000 enrollees reduced its overall utilization by 24% over three years, achieving 98% of target and keeping cost increases to $0.55 per member per month (pmpm) for the period.

A clinic with an average of 755 enrollees reduced its overall utilization by 27% over three years, achieving 90% of target and producing a reduction in cost of $5.88 pmpm which amounted to $53,300 in 1991 alone.

A clinic with an average of 5,900 enrollees reduced its overall utilization by 17% over three years, achieving 96.3% of target and producing a reduction in cost of $34.39 pmpm from 1991 to 1992 which amounted to $240,000.

These reductions have contributed to holding down costs for groups and individuals with Blue Plus coverage, and they have raised providers' awareness of the possibility of reducing health care cost trends.

DESCRIPTION

KEY ELEMENTS

The Clinic-Based Utilization Management Program is a special initiative of Blue Plus-MN that augments its traditional utilization management activities: pre-admission notification, prior authorization, concurrent review, case management, medical review and utilization review. Clinic-Based Utilization Management has been offered to employers for the last three years through the Blue Plus-MN plan. One hundred and fifty primary care clinics participate in the network.

Clinic-Based Utilization Management site visits were made to all clinics initially, and now most are visited through the policy of visiting clinics serving more than 500 Blue Plus-MN members. Physicians trained in utilization management who are either consultants or contractors with Blue Plus-MN are always members of a site visit team. Blue Plus-MN requires that the clinic visits be attended by the clinic medical director, and the nurse coordinator and clinical staff are encouraged to participate.

Each year primary care clinics demonstrating variation from Blue Plus-MN norms or serving large numbers of Blue Plus-MN patients are targeted for the development of analytical reports by Blue Plus-MN and for subsequent site visits by the Blue Plus-MN Medical Director and staff. Fifty of the 150 participating clinics get utilization management report packages from Blue Plus-MN twice a year.

Analyses determine which areas of care contribute to variations in utilization. Comparison data from other clinics are also used to demonstrate variation and establish a normative range. (See Data Used/Produced).

Every clinic is assigned a case manager from the Blue Plus managed care staff who is an appropriately prepared nurse. This dedicated staffing ensures that two sides of the story--provider and payor--are always considered. A separate group of Blue Plus-MN staff conduct the traditional utilization review activities.

Clinics are paid $1 pmpm for quality improvement and case management activities. The payment is insufficient to support the total cost of such activities but does signal Blue Plus-MN's commitment to Quality Improvement and case management activities. Many Utilization Management visits blend reviews of utilization management reports with reviews and discussions of Quality Improvement activities. Staff conduct an annual CQI conference consisting of a joint session and breakout sessions for clinic presentations of CQI projects.

Physicians are reimbursed on a fee-for-service basis, but a withhold is reserved based on past cost performance against targets incorporating age and sex adjustments. Physician performance targets include outpatient visits, referral rates and inpatient utilization. Preventive services are carved out and a bonus is paid to those physicians doing well in meeting objectives such as pediatric immunization requirements. Bonus payments under the Clinic-Based Utilization Management Program are also based on high levels or substantial improvements in patient satisfaction, the extent and results of the Quality Improvement program and exceeding the utilization performance targets.

Blue Plus-MN is developing a drug utilization review program that will be incorporated into the Clinic-Based Utilization Management program. It will include standard data reports and will focus on the use of certain types of drugs, generic substitution, outlier patients (persons with more than $1,000 of drug use per 6 months), and other features. Case mix adjustments are being applied too.

PROCESS

Blue Plus-MN provides clinics data, reports and analytical support to study and understand their own utilization and clinical performance, but the clinics take their own corrective actions. Once clinical areas are identified by a clinic for corrective action, Blue Plus-MN physicians conduct literature reviews on specific clinical topics and the results are shared with the clinic. Clinics also are referred by Blue Plus-MN to other clinics that have done studies of the same clinical procedures.

Blue Plus-MN is working to assemble a "library" of clinical protocols which clinics can consider and update.

All new clinics participating with Blue Plus-MN are encouraged to send all their clientele an introductory letter that explains such things as referrals, the appropriate use of the Emergency Room, and other procedures that contribute to good utilization patterns. Blue Plus-MN provides clinics with drafts of such letters and descriptive materials, return reply cards, etc.

POLICIES

The Clinic-Based Utilization Management program is a means to increase the accountability of Blue Plus clinics consistent with increasing employer demands for accountability and value. Blue Plus-MN and its Blue Plus Plan encourage use of clinical protocols and provide information about them; however, they view themselves as the least appropriate parties to develop such clinical protocols. Similarly, the clinics must be left to select their own QI projects. Clinics need plans to provide them utilization information but the physicians themselves have to manage the patients.

Blue Plus-MN requires all participating clinics to conduct 2-3 projects per year for quality improvement. Information from the Clinic-Based Utilization Management program is a good source for such QI studies.

Blue Plus maintains a specialty network for particular services and each primary care group is encouraged to select a subset of such specialists with whom it will routinely work.

PARTICIPANTS

The great majority of members, employers and providers participating in the Clinic-Based Utilization Management program are in the metropolitan Minneapolis-St. Paul area.

DATA USED/PRODUCED

The database supporting the Utilization Management program is a 4-year file of claims for 210,000 Blue Plus members.

Utilization management data are prepared to compare a clinic to two other similar clinics, to the clinic's performance over two years, and to the metro Minneapolis-St. Paul averages. Services are ranked by frequency within the clinic and by percentile across the Blue Plus network and by cost rank within the clinic and percentage of total service costs across Blue plus.

ANALYSIS

DISTINGUISHING FEATURES

Blue Plus-MN represents 5-20% of each clinic's business so it is interested in the information about utilization that Blue Plus-MN brings to the clinic site visits. Nevertheless, the physician groups have to invest in their own quality and utilization management analysis processes.

Blue Plus-MN has experienced very low turnover among its participating clinics. Only one clinic withdrew last year (1992) and only two the year before (1991). Very careful screening contributes to such low turnover. New clinics are reviewed for their "comfort" in the roles of gatekeeper and patient advocate, their attitude towards and experience with Continuous Quality Improvement, their expectations for Blue Plus-MN and their willingness to commit to meeting certain Blue Plus-MN performance standards such as waiting times, smoking cessation and other consultations, and others.

The Blue Plus-MN Utilization Management program does not dictate areas for improvement; it reports analyzed and comparative utilization management information, engages the clinic's leadership in discussions of the information and supports the clinic's own further study and improvement activities.

Blue Plus-MN is gradually doing more of the Clinic-Based Utilization Management activity and less of the traditional utilization review which is removed, punitive and less likely to contribute to provider behavior change.

CRITICAL SUCCESS FACTORS

Strong physician support and participation are key to improved utilization of resources.

KEY RESULT AREAS

Clinic-Based Utilization Management has been a key in helping employers and providers transition from indemnity coverage to Point-of-Service and other more managed care programs. It initially provides benefit managers an option for action.

UNIQUE CONDITIONS

Minnesota physicians generally practice as part of multi-specialty physician groups or clinics ranging in size from 3-4 members to very large groups with more than 200 members rather than in solo practice.

Minnesota employers interact with payors and others frequently and regularly as part of an active role they have assumed in the management of health care services for their employees.

Most Minnesota physicians believe in managed care and the systems that support managed care.

LESSONS LEARNED

A plan must be collaborative in working with the physicians, rather than just keep sending rejections and other negative signals.

Blue Plus-MN must continue to address and ensure the validity of data it develops and shares; lots of confounding factors remain in some of the available data such as the readmission data. More comparative and benchmark information would be helpful.

The more physicians present and participating in the Utilization Management site visits and CQI Annual Conference the better the results. Do whatever it takes to get them there.

Physician requests for information must be answered quickly, accurately and completely. Every inquiry, no matter how simple, is a chance to win or lose a substantial portion of the physician support essential for long-term success.

After every site visit or other meeting or interaction with a clinic, prepare a clear list of "to dos" and confirm them to the clinic in writing.

The contact person at the clinic for the Clinic-Based Utilization Management program must be the Medical Director.

While some clinics are already practicing population-based medicine, more training is needed in epidemiology and in what a primary care physician needs to manage care and function as a gatekeeper. More education of the consumer is needed too to understand the process of managing care and the important responsibilities of each patient in that process. More longitudinal rather than episodic studies of care practices also should be undertaken.

CAUTIONS

All data presentations should be made as part of a collaborative process to identify areas for improvement rather than to identify problems and problem makers.

COST ESTIMATES

STAFF

The Clinic-Based Case Management Program is operated by management and 2.5 FTE RNs and 1.5 FTE support staff.

OUTLINE OF A MANAGED CARE ORGANIZATION'S BEST PRACTICE

ACTIVITY Utilization Review --Claims Editing **MCO** United HealthCare Corp.

VALUE / OUTCOME / IMPACT

OBJECTIVES

United HealthCare has been developing knowledge-based software systems, such as Adjudipro®, and enhanced information systems:

To streamline the medical review of claims,
To standardize and add new medical reviews of claims, and
To reduce costs.

NOTABLE RESULTS

United HealthCare uses Adjudipro® to automatically process (without human intervention) 90-95% of all physician claims UHC receives which pend for review from its 18 UHC owned or managed health plans.

The financial payback on the development of Adjudipro® has been enormous. UHC saved approximately $1 million through Adjudipro® just for August, 1993.

DESCRIPTION

KEY ELEMENTS

Adjudipro® is a proprietary, knowledge (artificial intelligence) based software system that streamlines and standardizes medical reviews and adds new medical reviews of planned and completed health services that include comparisons to appropriate episodes of care.

It was developed through the application of a range of artificial intelligence techniques including expert systems.

It supports batch processing of current claims and can be applied to claims-paid files too.

A related package incorporates a "help-desk" application that stores specific cases and brings up the closest match.

DEVELOPMENT AND ORGANIZATION

Adjudipro® was developed by the Knowledge-Based Systems Development Group within United HealthCare's Information Systems unit. It is operated and maintained by the Information Systems unit.

Development of Adjudipro® began in 1990. It went into production in March, 1991, and began producing paper reports of the results of its reviews. These reports were distributed within UHC for a year to ensure appropriateness, accuracy and familiarity.

In March, 1992, Adjudipro® began automatically processing and clearing physician claims. A new claim review introduced by Adjudipro® was global surgical review.

Adjudipro®'s development combined with UHC's need to avoid overloading its mainframe led to migrating the Adjudipro® claims processing to a UNIX knowledge-based server and network linked to the mainframe.

PROCESS

Adjudipro® automatically clears 90-95% of the claims it examines.

Usual backup arrangements are used including backup machines and off-site tape storage.

Auditors audit the results of the Adjudipro® claims review.

POLICIES

Adjudipro® is now being applied only to physician claims for the following reasons:

They represent the greatest volume.

They include a high error rate and a high dollar value of the errors.

The administrative cost of processing such claims is high.

Hospitals are frequently paid on a per diem basis.

ANALYSIS

DISTINGUISHING FEATURES

Adjudipro®'s claims analysis includes review of related history.

CRITICAL SUCCESS FACTORS

Rapid prototyping was important to the success of the package and ready access to claims processing experts contributed to the successful prototyping.

KEY RESULT AREAS

Substantial monthly cost savings on physician claims are being realized. For example, $1 million was saved for the month of August, 1993 (not considering savings in administrative staff costs). These cost savings lower the medical loss ratio of the plans.

Staff growth is slowed avoiding additional costs.

Staff training at UHC is enhanced by using Adjudipro®.

UNIQUE CONDITIONS

Most physicians participating in UHC managed or owned plans are still reimbursed on a fee-for-service basis.

LESSONS LEARNED

The first applications of artificial intelligence and client-server technologies must first gain acceptance from the main-line Information Systems staff and management even though they are developed and applied within Information Systems.

DEVELOPMENT PLANS

UHC plans to add at least 10 new medical reviews to Adjudipro® in 1994, half of which will be medical reviews not previously done before even by nurse reviewers. Such new reviews will be put into production on a "report only' basis until they are fully checked and are understood and accepted by physicians. For example, work was recently completed on claims reviews of casting services and laboratory bundling.

Development work is continuing to distribute processing from the mainframe to the UNIX network to support fully real-time claims processing.

COST ESTIMATES

TIME Development--approximately 1 year
Testing and education--1 year

MONEY Development costs and the cost of operating Adjudipro® for 3 1/2 years have been approximately $2.5 million.

Appendix A

SURVEY DESIGN

PURPOSE

MANAGED CARE AS PREFERRED CHOICE

The HCFA Office of Managed Care (OMC) is committed to making managed care the preferred choice for health care. Consequently, OMC and its Division of Policy and Evaluation (DP&E) support continued improvement in the quality of all MCO operations and supportive activities.

ENHANCEMENT OF MCO PERFORMANCE

By identifying and sharing information externally with MCOs about activities judged by knowledgeable persons in the field of managed care to be some of the best practices, DP&E may encourage continued efforts by the active MCOs cited and may stimulate new efforts by other MCOs to enhance performance. Other MCOs may improve their own operations by adopting, adapting or otherwise learning from the best-practice activities reported.

IMPROVED HCFA APPROACHES

Such information about the leading activities of some MCOs may be useful within OMC and HCFA to support the development of policies and program additions and modifications that reflect the "best" in managed care--what is proving to be both feasible and effective and what directions are being pursued within the industry for further improvement. Such "real world" information is especially useful now as substantial health policy and program changes are being explored through discussions of Health Reform. The information may also be used to support technical assistance initiatives.

NATURE

DESCRIPTIVE REPORT

This survey of best practices among MCOs is a descriptive report of a small collection of MCO activities judged to be worthy of review and consideration. The information presented was provided by the MCO in

response to a standard outline provided by DP&E and to follow-up questions and requests from DP&E. Consequently, some activity descriptions are more detailed and informative than others.

The style and format of the report are intended to make it most useful to busy operational managers and executives of MCOs and to operations and policy personnel within OMC and HCFA.

The report is neither a highly interpretive analysis of best practices in the managed care industry nor a scientifically determined subset of MCOs and their best practice activities. The activities described are presented neither as the best possible practices nor best practices taken from the best MCOs, though some may judge either to be true in certain cases. Also, insufficient comparative information is available to suggest that the best practices described should be considered benchmarks, although, again, some of them may prove to warrant such a designation.

SCOPE

ALL MCOS

The survey was designed to include any type of managed care organization even though OMC and DP&E primarily deal with Health Maintenance Organizations and Competitive Medical Plans and the service of Medicare and Medicaid beneficiaries. Thus, the study could also include Preferred Provider Organizations, Exclusive Provider Organizations, Point-of-Service Plans, Taft-Hartley Plans, managed indemnity plans, etc. and HMOs serving commercial populations.

MCOs did not have to be under contract with HCFA as a risk- or cost-based plan to be included. HMOs did not have to be Federally Qualified to be included. The study design did not incorporate any geographic restrictions.

ALL MCO ACTIVITIES

The activity model of an MCO used to guide the survey of best practices (Figure 1) was designed to include all types of MCO activities--Organizational and Managerial, Clinical and Administrative--ranging from Outcomes Measurement to Staff Training. The Sources contributing to the survey did not identify a best practice for every activity in the model for inclusion in the survey.

PHASES

The survey proceeded through four phases:

A. Study Planning and Design.

B. Identification of Knowledgeable Sources and Their Citation of MCOs and Activities to be Targeted for Study.

C. Participation of Targeted MCOs and Collaborative Development of Outlines of Best-Practice Activities.

D. Report Preparation and Distribution.

STUDY PLANNING AND DESIGN

The planning and design of the study were guided by the purposes outlined above--making managed care the preferred choice, enhancing MCO performance, and improving HCFA's capabilities to develop appropriate policies and programs. Its nature and scope were also constrained by the limited resources available.

SOURCES FOR MCOS AND ACTIVITIES

Persons knowledgeable about the field of managed care who could serve as sources for the study were continuously identified in a variety of ways that included reference to professional publications and presentations and word-of-mouth referrals. Others were sought to satisfy a study design objective to reflect the views of a broad mix of health-related individuals including purchasers of health care, national and regional industry associations and professional organizations, university faculties, consultants and think tanks, and others. In retrospect, greater effort should have been made to include the views of organizations "representing" specific client groups such as Medicare, Medicaid and union beneficiaries.

TARGETED AND PARTICIPATING MCOS AND BEST PRACTICE OUTLINES

DP&E arrayed the MCOs and activities targeted by sources as best practices for possible inclusion in the survey. From this array DP&E selected a manageable group of MCOs for invitation to participate in the survey. In making this selection DP&E considered the time and effort available, the mix of activities, the frequency with which an MCO was cited for an activity, geographic distribution and other factors.

DP&E informed targeted MCOs about the survey and their being cited by knowledgeable sources as being engaged in one or more best practices, and DP&E invited them to participate in the study. During this invitation process DP&E developed a more realistic view of the time and effort that would be needed to work with participating MCOs to develop outlines of best practices. Consequently, DP&E removed four MCOs from the list of Targeted MCOs based on whether or not the MCO had been contacted yet.

In conjunction with telephone calls DP&E faxed a memorandum to each Targeted MCO invited to participate in the best practices study. It outlined the nature of the study and the activities for which the MCO had been cited for inclusion. It also outlined a work plan to be followed by the MCO and DP&E. A sample of the Memorandum of Invitation is included as Appendix D.

REPORT PREPARATION AND DISTRIBUTION

DP&E gave each participating MCO final approval authority on the outline of its best practice activity to be included in the final report of the study. DP&E also committed to providing each participating MCO a copy of the final report regardless of the extent to which it was distributed outside DP&E and HCFA.

Many Sources expressed interest in receiving a copy of the final report too.

METHODS

DP&E used methods throughout the study designed to limit the burden on participating MCOs and speed the survey process while ensuring a useful report. Telephone conversations were used instead of correspondence whenever possible and were usually supported by background material which frequently was faxed to the MCO.

Appendix B

SOLICITATION PACKAGE

EVALUATION STUDY OF BEST PRACTICES IN MANAGED CARE ORGANIZATIONS

HCFA Office of Coordinated Care Policy and Planning

EVALUATION STUDY
of
BEST PRACTICES IN MANAGED CARE ORGANIZATIONS

The HCFA Office of Coordinated Care Policy and Planning (OCCPP) is conducting a study of best practices among managed care organizations (MCOs). The study is part of OCCPP's evaluation of managed care questions and issues in support of managed care policy development, program planning and promotion.

The study will identify ways of operating significant aspects of MCOs that are considered by knowledgeable professionals and related organizations to be "best practices." The activities to be studied have been grouped into three areas of review--

> Managerial (Organizational/Marketing/Financial/Legal, etc.),
> Clinical Health Services Delivery, including QA, and
> Administrative, including MIS.

The attached chart arrays the operating activities according to their relative contribution to good health being achieved in cost effective and satisfying ways through viable MCOs. Thus, a "best practice" will contribute to one or more of the following conditions without reducing one or more of the other conditions to unacceptable levels:

Cost-effective health outcomes.	High member/patient satisfaction.
Strong financial performance.	Desirable or strong market position.
Stable provider services.	Growth opportunities.
Innovation and improvement.	Other positive characteristics.

OCCPP will target MCOs based on HCFA's own knowledge and the advice and recommendations of other federal agencies, professional organizations, academics, consultants and employers. OCCPP will explore and document "best practices" through voluntary, structured conversations with targeted MCOs and will report its findings to the industry, state governments and other federal agencies.

Such information will increase HCFA's understanding of the ultimate capabilities and strengths within the managed care industry and of the range of conditions that exist. It will be useful as HCFA develops reasonable policies and regulations supporting managed care and broader health reform. The information may also be used to support technical assistance initiatives. Furthermore, it can promote a wave of improvement in MCO operations as other MCOs adopt, adapt or otherwise use or learn from the operational best practices to enhance their operations.

Appendix C

SOLICITATION PACKAGE

ACTIVITY TITLES AND MEANINGS

ACTIVITY TITLES AND MEANINGS

Source	An organization or person knowledgeable about MCO activities and performance that could be helpful in identifying (1) practices worthy of examination and (2) MCOs to be examined for particular successful practices
Target	An MCO (HMO, FQHMO, CMP, HIO, PPO, EPO, POS Plan, Taft-Hartley Plan, Managed Indemnity Plan, MET or MEWA Plan, etc.) to be contacted and invited to describe particular practices
Best Practice Activity	An aspects of the way an MCO is structured and operates that should be examined

ORGANIZATIONAL AND MANAGERIAL CHARACTERISTICS

CQI	(Continuous Quality Improvement) The MCO's process for empowering and involving participants, identifying and determining customer needs, and defining processes, measuring performance and continuously initiating planned actions to improve results
FinanStrength	(Financial Strength) The composite effect of all indicators of the short- and long-term financial viability of the MCO (current and recent net operating and total income, working capital, ratios (quick, acid, debt to equity, etc.), bond rating and other financial indicators)
Innovation	The ability to develop or adapt new and improved service initiatives or operational methods and processes
MktgEffect	(Marketing Effectiveness) The ability to communicate about the MCO and its activities and thereby maintain or increase membership, provider and supplier relationships; advantageously position and price the MCOs services; and be a known and respected/attractive source of healthcare services and target for capital and other resources
MembrGovrn	(Member Involvement in MCO Governance) The involvement of the MCO members in the governance of the MCO

Ownership	The characteristics of the ownership structure and risk taking and reward arrangements--for profit, not-for-profit, cooperative, independent/subsidiary, religious or other social affiliation, etc.
PhysIncentives	(Physician Incentives) The financial, other tangible or intangible incentives, both planned and unplanned, that physicians experience in their activities with the MCO affecting any aspect of their professional and personal lives
PhysCorpRole	(Physicians' Corporate Role) The nature and extent of physicians' activities and responsibilities for the management (planning, direction, operation and performance) of the entire MCO
PrimCareGate	(Primary Gate Keeper) Arrangements for the use of primary care giver to coordinate (pre-approve) specialty services
ProvCover	(Provider Coverage) The extent to which the number and mix of providers (physicians, hospitals, ambulatory centers, nurses, allied health professionals, etc.) are available (geography, service hours, etc.) and accessible (capacity, culture, language, patient-friendliness, etc.)
ResourcePlng	(Resource Planning) The process for determining the MCO's developmental direction and for assembling and allocating the resources needed to develop (or survive)
SatisSurvResp	(Satisfaction Survey Response) The process of assessing the satisfaction of members, patients, staff, providers, external allies and others regarding any and all aspects of the operation and performance of the MCO
TechAssess	(Technology Assessment) The process and methods used to determine the efficacy of technical equipment and equipment-supported procedures and whether to acquire and implement such equipment/procedures

CLINICAL CHARACTERISTICS

CareCoord	(Care Coordination) The activities, structures (e.g. a primary care physician gate-keeper, an appropriate ratio of specialists to primary care physicians) and processes to provide the complete and properly sequenced set of clinical services

	appropriate to the patient and the patient's condition without wasteful or dangerous consumption of services and resources
CaseMgmnt	The continuous, focused attention of a clinical professional interacting with professional care givers to establish and execute the optimal diagnostic and treatment plan in the most appropriate settings
Outcomes	The identification, analysis and reporting of the higher level impacts of medical interventions including effects on morbidity and mortality, health status, functional capability, etc.
Prevention	The services, the promotional and follow-up techniques and processes and the evaluation studies and reporting associated with pre- or early-symptomatic identification of illness susceptibility and the clinical and behavioral interventions to avoid such illnesses and to promote wellness.
ProtocolAppl	(Protocol Applications) The application of clinical protocols (experience-based, professionally preferred approaches to the diagnosis, treatment and follow-up of health problems) by the MCO's providers
ProvProfile	(Provider Profiling) The systematic development of measures of a providers clinical behavior and the comparison of that behavior pattern to the patterns of selected peers, the averages or levels of an entire peer group, established standards or other levels of performance
QA	(Quality Assurance) A set of activities aimed at ensuring that only appropriate care is rendered in the most efficient and convenient manner to produce the "best" results, including record review and reporting, assessment of service availability, utilization management activities, peer review of cases, clinical training sessions, provider credentialing and grievance procedures
ScrngAssess	(Screening and Assessment) Services provided to detect the presence of or predisposition to illness and to establish the level of health or illness
Soc/Vol Svcs	(Social and Volunteer Services) An array of non-clinical but clinically supportive services (transportation, homemaker services, recreational services, etc.) provided by non-professional care givers in addition to the clinical care rendered by providers

SpecPopCoord	(Specialty Population Care Coordination) The planning and coordination of an array of clinical and support services to support the special needs of a specific member sub-population such as the very elderly, the disabled, etc.
SubAcute	The innovative use of clinical services, especially institutional services, at a level providing for supervised healing and recovery but without maximum levels of skilled intervention

ADMINISTRATIVE CHARACTERISTICS

Anal&Rptg	(Analysis and Reporting) The process of identifying matters to examine, collecting relevant data, analyzing data and information, drawing conclusions and acting according to those conclusions
ApptSchdl	(Appointment Scheduling) The process of setting appointments for members, reminders and other activities to have appointments kept on time, reducing rescheduling, optimally use the plans resources and keep waiting times within appropriate limits clinically and satisfactory to patients
EDI	(Electronic Data Interchange) Development and implementation of information systems arrangements to comply with developing ANSI ASCX12 formats to automate transactions, establish electronic links, use standardized billing content (National Uniform Billing Committee and Uniform Claim Form Task Force) and to preserve appropriate confidentiality
MbrProvCommu	(Member and Provider Communication) The process of getting information to and from members and providers related to any aspect of the organizations activity not more specifically addressed by another term
MembrEduc	(Member Education) The education of MCO members (subscribers) regarding their use of the MCO, its performance, the healthcare environment, health and wellness, illness management, member/patient responsibilities and rights, etc.
Smart Cards	Development and use of electronic card technology, including magnetic stripe, computer chip and others, to facilitate coordination of benefits, medical record availability and other useful

	communication about patients, their medical history and their membership
StaffTrng	(Staff Training) The planning, use and evaluation of courses, materials, and other devices to raise skills levels, increase understanding, enhance motivation and satisfaction and enable higher levels of performance by staff
UnifBilling	(Uniform Billing) Application of evolving industry standards for non-capitated billings
UnifSnglRecrd	(Unified Single Record) The maintenance and use of one medical record per patient that captures all inpatient, outpatient, physician and ancillary health services rendered, provides linkages to records of immediate family members and contains all information in standard formats
VendSupMgmnt	(Vendor/Supply Management) The development and maintenance of effective relationships with vendors and suppliers of equipment and services that include such features as the imposition of quality standards, long-term strategic collaborations, testing and modeling, and other activities producing cost-effective results for the MCO
Wkrs'Comp	(Workers' Compensation) The administrative arrangements (tracking, reporting, billing, record keeping, etc.) and clinical arrangements (physician and allied personnel staffing, scheduling, workplace and job knowledge, case management and tracking, etc.) to treat advantageously workplace-related injuries and illnesses

Appendix D

SOLICITATION PACKAGE

SAMPLE MEMORANDUM OF INVITATION

HCFA/OCCPP STAFF MEMORANDUM

TO:

FROM: George Stuehler
HCFA/OCCPP
Tel: 202-619-3166 Fax: 202-205-9522

DATE: September 15, 1993

SUBJ: Evaluation Study--Best Practices in Managed Care
--Informal Introduction and Invitation to Participate

The Division of Policy and Evaluation of the HCFA Office of Coordinated Care Policy and Planning recently initiated several small evaluation projects as part of its evaluation responsibility. One of these projects, which I am leading, addresses "Best Practices" at Managed Care Organizations.

The study will identify ways of operating significant aspects of MCOs that are considered by knowledgeable professionals and related organizations to be "best practices."

Based on the recommendations of various individuals knowledgeable about managed care, I would be particularly interested in learning about 's approach to the following "activities:"

SPECIALTY POPULATION COORDINATION (Elderly and Indigent)--The planning and coordination of an array of clinical and support services to support the special needs of a specific member sub-population such as the very elderly, the disabled, etc.

SCREENING AND ASSESSMENT (Elderly)--Services provided to detect the presence of or predisposition to illness, to establish the level of health or illness, and to indicate appropriate interventions.

OUTCOMES (especially Clinical Indicator System)--Activities involving the measurement, analysis, reporting and use of information about the impact or ultimate effect of clinical or non-clinical interventions on the health status, functional capacity, etc. of persons served by the organization.

To guide your decision to participate and your assistance, I have enclosed materials presenting:

An overview of the evaluation question and study.

An outline for the two-to-three page presentation of each "best practice" activity.

Please be assured that 's participation in this study of "best practices" is completely voluntary and is unrelated to any other HCFA- activity.

If you do decide to participate, I would suggest we follow these steps during the next two to three weeks:

identifies a Contact for the Activity.
OCCPP initiates telephone introduction of Study to Contact.
OCCPP faxes Activity Description and Outline to Contact.
Follow-up telephone discussion between OCCPP and Contact.
Contact faxes Draft Activity Description to OCCPP.
OCCPP initiates feedback/clarification telephone discussion.
Contact faxes Final Activity Description to OCCPP.
OCCPP faxes draft Report to Contact for clearance.
OCCPP sends Final Report to Contact.

Please call me at 202-619-3166 to let me know if will participate or to discuss the study further.

Thanks for your consideration.