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*Update to the*  
**GREATER SACRAMENTO  
MARKET OVERVIEW:**

*DISEASE AND CONDITION  
MANAGEMENT PROGRAMS IN  
PHYSICIAN ORGANIZATIONS  
IN THE  
GREATER SACRAMENTO AREA*



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## EXECUTIVE SUMMARY

In 1997, Sierra Health Foundation commissioned a report which detailed health system change in the greater Sacramento area. That report cited the importance of clinical practice changes that could improve quality of care, and it identified information systems and market-level financial incentives that could support those changes.

This report on Disease and Condition Management Programs in Physician Organizations (MDOs) in the Greater Sacramento Area is an update to the initial report, and concentrates on evidence-based, planned care for persons with specific conditions or diseases.

Currently, MDOs in the Greater Sacramento Area are engaged in major initiatives to examine existing patient care processes and change clinical practice by implementing more systematic evidence-based, planned care for persons with chronic conditions and diseases. While most initiatives are driven by the need to lower costs, many of these initiatives are likely to improve quality of care.

MDOs vary widely in the steps that they've already taken to implement evidence-based, planned care. Although some are substantially ahead of others in actually effecting the changes, much more can be done to systematize and improve care in every physician organization. In some MDOs, care delivery is similar to that under the old indemnity insurance, fee-for-service (FFS) system in that a common culture and common, systematic ways of doing things are only beginning to emerge. On the other hand, in other MDOs, care delivery substantially differs from the old FFS system. Those MDOs tend to be the ones that have lived under the constraints of capitation for a longer period of time,

and/or have strong leadership, a culture of systematic care, and adequate or very good information systems.

Moving to health care market competition that is based on quality of care is the crucial step forward needed to hasten improvement in quality of care in Greater Sacramento Area MDOs.

Private and public policy-makers can take positive, constructive actions in that direction, especially by requiring much more quality measurement and reporting, and payment of health risk-adjusted rates to physician organizations for persons with conditions and diseases. The tools to effect change are available. It is up to policy-makers to use them.

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*Within the Greater Sacramento Area, all MDOs are moving in the same direction – adopting evidence-based, planned care for persons with chronic conditions and diseases.*

The single most important challenge that physician organizations (MDOs) currently face in improving quality of care is creating evidence-based, planned systems of care<sup>1</sup> for persons with higher cost, chronic conditions and diseases. This report focuses on some attempts that major MDOs (medical groups and independent practice associations (IPAs)) in the Greater Sacramento Area have made to improve this care. It also focuses on changes that MDOs have made in organizational structures and information systems in order to facilitate changes in processes. It recommends policies that purchasers, regulators, and other policy-makers can adopt to hasten clinical care improvements, including altering administrative and financial incentives that MDOs face.

This report concentrates on describing evidence-based, planned care for persons with specific conditions or diseases – for example, disease management programs for persons with congestive heart failure (CHF), diabetes, asthma, chronic obstructive pulmonary disease, or high cholesterol levels. Nationwide, more and more MDOs are beginning to implement new care delivery processes, although the extent of their use varies widely, and many MDOs have yet to implement any at all.

Often such programs start with an MDO adapting existing knowledge on how to treat such persons. The Agency for Health Care Policy and Research and other agencies and professional bodies already have developed, promulgated and distributed such guidelines as free public goods to users.

In order to implement guidelines, MDOs develop protocols (operational procedures) that specify processes (activities that should be performed) for the care of enrollees. Whereas for any given patient, protocols often are just

suggestions to clinicians, across many patients with a specific condition or disease, organizations expect that clinicians will follow the protocols. In order to make protocols “work,” MDOs change (reengineer) clinical practice or processes, including what activities to perform, who should perform them (e.g., primary care physician, specialist, or nurse), and when, where, and how they should perform the activities.

These clinical process changes often include substantial nurse or nurse practitioner involvement in most aspects of care, such as: patient identification, assessment and care plan development; on-going communication with the primary care physician (PCP); on-going telephone monitoring of the patient’s condition; and pro-active scheduling of return visits. These process changes also often include new ways of providing information, expert advice, and feedback to clinicians, and new ways of educating and supporting the patient, thereby helping the patient become a more effective participant in the patient’s own care delivery.

In this report, we discuss problems in implementing evidence-based, planned care programs, and present any available, local evidence about their effects. We also describe some of the clinical information systems changes that support clinical practice changes. Such changes include the use of new systems or better use of existing systems in order to: a) deliver information and knowledge to clinicians at the point of care (such as patient lab and radiology results, reminders, alerts, and guideline suggestions); and b) provide clinicians with subsequent feedback about their performance in treating groups of patients.

Although not the focus of this study, evidence-based care also is used to help prevent illness or disease (e.g., childhood immunizations), identify disease at the earliest possible stage (e.g., screening for breast, colon or cervical cancer or for diabetes), or appropriately treat enrollees with an acute condition (e.g., heart attack or pneumonia).

Within the Greater Sacramento Area, all MDOs are moving in the same direction – adopting evidence-based, planned care for persons with chronic conditions and diseases. At the same time, physician organizations are

diverse in the extent to which they have moved in that direction and in the pace of the changes that they are making.

It is important to emphasize that the purpose of this report is not to conduct side-by-side comparisons of clinical practice change efforts across organizations in order to provide consumers with information that they can use to select MDOs. Simply having a program in place does not automatically mean that quality of care will be higher – even without a systematic program, many physicians provide high quality chronic care. Although there is much anecdotal evidence about improvements in quality of care due to chronic care programs, research evidence to support such claims is quite limited.

Any side-by-side comparisons among organizations require methods and measures that should be the subject of another, more extensive and comprehensive study which is designed with that specific comparison objective. Such a study would have to:

- a) describe all relevant clinical processes that an MDO had implemented;
- b) determine the extent to which processes were appropriately utilized; and
- c) determine the health outcomes that such processes produced.

In order to be successful, such a study would require key stakeholder “buy-in” about what performance measures are credible and understandable enough to be used for comparison purposes.

Instead, the more limited goal of this report is to:

- a) emphasize the importance of clinical practice change that potentially could improve quality of care for persons with chronic conditions and diseases;
- b) summarize the extent and pace of that change that is underway in capitated physician organizations throughout the Greater Sacramento Area;
- c) analyze obstacles to change; and
- d) recommend actions that Sierra Health Foundation and/or a wider community of foundations and stakeholders could take to facilitate beneficial practice change.

*Although health maintenance organizations (HMOs) have enrolled over 65 percent of the population of 1.7 million persons (or 80 percent of the insured population), they have delegated financial risk and clinical management responsibilities to the five health care delivery systems that now serve about 90 percent of HMO enrollees and much of the remaining population.*

This report focuses and follows up on several key themes emphasized in a prior report on health system change in the Greater Sacramento Area through the end of 1996.<sup>2</sup> That report stressed the importance to quality improvement of clinical practice changes, and of information systems and market-level financial incentives that can support those changes.

#### **Methods**

The project investigator interviewed managers in nine MDOs, and other interviewees with knowledge of the area's MDOs. Managers included MDO medical directors, presidents or executive directors or other top officers of the MDOs or of affiliated organizations. The project also included review of documents provided by some MDOs, as well as information from the local press, which provided extensive coverage of business developments. Although we obtained a substantial amount of information, in some cases managers interviewed were not familiar with all aspects of every program pertinent to this project, so some program descriptions may be incomplete or omitted. Interviewees were asked to review descriptions of their chronic care programs and suggest clarifications.

#### **Background: Market and physician organization characteristics and recent changes**

Efforts to adopt evidence-based, planned care for chronic conditions and diseases takes place within a specific market context. Several key factors of the Sacramento market affect efforts to improve quality of care.

Although health maintenance organizations (HMOs) have enrolled over 65 percent of the population of 1.7 million persons (or 80 percent of the insured population), they have delegated financial risk and clinical management responsibilities to the five health care delivery systems that now serve about 90 percent of HMO enrollees and much of the remaining population. In yielding control over clinical care decisions, all HMOs but Kaiser have limited themselves to an oversight role. Whereas Kaiser Foundation Health Plan also has delegated risk and clinical management responsibilities to the Northern California Permanente Medical Group (TPMG), the health plan remains involved in the operations of its closely affiliated providers.

The five largest delivery systems that are key institutions for improving quality of care in the Greater Sacramento Area include:

- Kaiser, an integrated health plan/physician group/hospital system;
- Sutter Health, Mercy Healthcare Sacramento, University of California, Davis (UCD), three hospital-led systems with affiliated physician organizations; and
- Hill Physicians Medical Group, an independent practice association (IPA), which is independent of the other systems.



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The first four systems account for over 95 percent of all hospital bed days, according to data from the state's Office of Statewide Health Planning and Development. Figure 1 summarizes the number of physicians and HMO enrollees by health system.

**Figure 1: Number of Physicians and HMO enrollees in Physician Organizations, Greater Sacramento Area (1999) (thousands)**

Delivery system Parent firm	Major physician organization operating unit or affiliate	# PCPs/ specialists	# HMO enrollees (estimates)	# Medicare HMO Enrollees (estimates)
Kaiser/ The Permanente Medical Group (TPMG)	TPMG, Sacramento service area	238/474	561	51
Sutter Physician Alliance	Sutter Medical Group	111/51	92	11
	Sutter Independent Physicians (SIP)	92/400	52	5
	Sutter West Medical Group	31/11	22	0
Mercy Healthcare Sacramento /Catholic Healthcare West	MedClinic Medical Group	69/46	85	13
	Woodland Clinic Medical Group	35/33	30	3
University of California, Davis	Primary Care Network (PCN)/Faculty Associates	145/427 (105 PCPs in PCN)	84	6
Hill Physicians Medical Group	Hill Physicians, Sacramento region	120/330	90	11
<b>TOTAL</b>	<b>All physician organizations</b>		<b>948</b>	<b>100</b>

In addition to those in Figure 1, River City Medical Group – another independent IPA – serves 25,000 Medi-Cal (Medicaid) HMO enrollees through the area's Geographic Managed Care Medi-Cal program. As well, several large specialty groups dominate within a specialty category, such as for cardiologists, ear/nose/throat specialists, infectious disease specialists, and pulmonologists.

Kaiser Permanente – through the Kaiser Foundation Health Plan, Kaiser Foundation Hospitals and TPMG, Sacramento service area – remains the dominant competitor for HMO enrollees, with nearly as many HMO enrollees as all of its competitors combined.

Given its size (locally, in Northern California, and statewide) Kaiser Foundation Health Plan's agreements with purchasers on premium rates affect other HMOs' premiums, that in turn help determine the dollars that go to delivery systems and MDOs. For several years, Kaiser had projected that its cost structure would be lower than its competitors and had set relatively low premium rates, which contributed to the financial pressure that HMOs and delivery systems faced. In fact, Kaiser miscalculated the cost of "growing" its enrollment (e.g., some enrollees wound up in competitors' hospitals due to its own hospital capacity constraints). As a result, Kaiser recently raised its rates, thereby narrowing premium differences with other plans, while still permitting other HMOs to raise their rates and hence increase their revenue. A key question is the extent to which delivery systems will obtain a larger share of HMO revenue growth.

Each non-Kaiser delivery system is experiencing sluggish revenue growth. For much of the 1990s, California employers (as purchasers) were unwilling to pay for substantially higher health care premiums to HMOs, which translated into stagnating or lower payments to physician and hospital organizations. Employer premium payments to HMOs increased in the past year, and will continue to rise at least in the near future, as HMOs have shifted focus from building market share to rebuilding profitability.<sup>1</sup> Given the latter focus, growth in premium levels have not yet translated into commensurate revenue growth for most California hospitals and physician organizations in the non-Kaiser sector. Moreover, given changes due to the Balanced Budget Act of 1997, Medicare (through the Health Care Financing Administration) also has restricted HMO and delivery system revenue growth.

Most systems are struggling financially – either to maintain profitability or stem their losses – in the face of rising consumer expectations that are intertwined with a rapid increase in pharmaceutical expenditures. Reflecting

*Dynamic growth within the health care sector is coming from biopharmaceuticals and to a lesser extent medical devices, not from hospital or physician use.*

California-wide and nation-wide trends, the physician sector is under particular financial pressure. For Kaiser and the three hospital-led systems, financial results were partially ameliorated by substantial investment income, mostly due to a rising stock market.

- In the Greater Sacramento Area, Kaiser operations (health plan, hospitals, and physician group combined) were profitable in the first quarter of 1999, but not in the second,<sup>3</sup> and were unprofitable in 1998. Nationally, Kaiser was marginally profitable on its operations in the first half of 1999, after losing over \$550 million in 1997 and 1998.
- For fiscal 1999 (ending June 30), Mercy Healthcare Sacramento expected to lose \$2 million (on revenues of over \$600 million), including an anticipated loss of \$18 million from physician operations overall, and \$12 million from MedClinic specifically.<sup>4,5</sup> Mercy's parent Catholic Healthcare West (CHW) expected to have an operating loss of over \$225 million (its revenues were \$3.5 billion in 1998) on its 48 hospitals and 7 physician organizations, intensifying losses on operations experienced in the previous fiscal year. For fiscal year 1998, Mercy Healthcare Sacramento was marginally profitable (even with an almost \$9 million loss on physician operations), as was its parent CHW.
- For fiscal year 1998, the Sutter Central Area (that includes the 4-county Greater Sacramento Area) lost almost \$5 million on operations (on revenues of \$713 million), compared to a modest profit in fiscal year 1997. Sutter Health does not provide separate figures for its physician operations, but claims that both Sutter Medical Group and Sutter Independent Physicians were profitable in 1998.
- UCD's delivery system remains profitable, mostly due to its status as the dominant level 1 trauma center in the area. For fiscal year 1999 (ending June 30), UC Davis Medical Center had net income from operations of \$22 million on revenue of \$625 million, compared to net income of \$28 million on 5 percent lower revenues in fiscal year 1998.<sup>6</sup> Its Primary Care Network reportedly has lost over \$10 million since 1995, albeit without taking into consideration hospital and specialist referrals it has generated for the UCD health system.
- Hill Physicians was modestly profitable in the year ended June 30, 1999 (profits over \$2 million on revenues of \$218 million).<sup>7</sup>

The more general problem for delivery systems in the Greater Sacramento Area is that the hospital and physician service sectors are mature industries, with slow growth prospects. Dynamic growth within the health care sector is coming from biopharmaceuticals and to a lesser extent medical devices, not from hospital or physician use.

Non-Kaiser MDOs have focused on consolidating operations – and attempting to improve profits or stem losses – after a period of rapid growth in members.

The 1992-96 period saw the rapid expansion of some new MDOs in the context of overall growth of HMO enrollment and transfer of risk to MDOs in the area, and Kaiser's stagnation. Both Sutter medical groups and UCD's Primary Care Network were created during this time period. The demise of FPA Medical Management in mid-1997, along with the Sacramento-area physician organizations that it had acquired, marked the end of this physician organization growth phase.

Given the slow growth of HMO market share growth, obtaining new HMO enrollees has almost become a "zero-sum" game – growth for one entity often comes at the expense of another entity. Currently there appear to be few major shifts in MDO enrollment or market share among physician organizations because HMO enrollment growth is low, as all MDOs defend their enrollment vigorously, Kaiser has raised its premiums relative to other HMOs (and thus slowed its own growth), and few other economic or visible quality of care incentives motivate most enrollees to move from one organization to another.

#### **Evidence-based, planned chronic care in Greater Sacramento Area physician organizations**

Substantial differences among physician organizations exist that can affect the extent and pace of adoption of evidence-based, planned care. Physician organizations are diverse not only in size, but in many other areas, such as years of experience with (and orientation to) capitation and evidence-based care; relationship with other, larger parent or affiliated entities (hospital systems, medical foundations, larger medical group structures, or physician practice management companies); and financial condition. In the discussion section, we examine these and other factors that can affect clinical practice.

The extent of implementation of evidence-based, planned care tends to vary with the age of the physician organization – older, larger medical groups with substantial experience with capitation tend to take the lead in clinical practice change nation-wide. Such medical groups have had time to gain experience with more organized care and select physicians that fit into a culture that emphasizes systematic care. As a result, Kaiser has a substantial lead in implementing new chronic care programs in the Greater Sacramento Area,

given TPMG's long history of over 50 years, and TPMG Sacramento service area's history of over 35 years. MedClinic, started in 1984, has the next largest number of programs. All other MDOs are newer, and are beginning to implement various evidence-based, planned care programs. Most organizations have programs for persons with congestive heart failure (CHF).

CHF patients are likely to have one or more high-cost hospital admissions, and evidence shows that systematic care can reduce admissions.<sup>8</sup> Several organizations have programs for persons with diabetes and asthma, and there are some programs for other chronic conditions and diseases. Programs use specific patient identification and/or referral criteria and provide at least some staff support to the PCP. Most include some form of registered nurse (RN) or other non-physician case management, with some combination of assessment, care planning, communication with the PCP, and compliance and health status monitoring. Programs tend to vary substantially in the extent of the case managers' on-going involvement in the patient's care. Unless otherwise indicated, program enrollment is as of September 1999.

#### **1. The Permanente Medical Group (TPMG), Sacramento Service Area**

TPMG Sacramento service area physicians are members of the larger TPMG that serves almost 2.8 million HMO members in Northern California. TPMG (Northern California-wide) plays a substantial role in determining what and how clinical practice change occurs for all of its care centers (including the area's Sacramento, South Sacramento, and Roseville centers). TPMG's clinical practice change process involves several key organizational structures, including the TPMG chiefs of services peer group, Board of Directors and regional Department of Quality and Utilization, a Quality Oversight Committee (consisting of half TPMG and half Kaiser Foundation Health Plan leadership), the health plan Board, and various care facility-level bodies.

The labor-intensive process of making clinical practice change involves a series of steps, including:

- research into possible areas for change and potential targets for improvement (including identifying

current practice, measures of quality and utilization, and potential for improvement);

- further analysis and validation of the usefulness of changes;
- convening panels of physicians that conduct literature reviews, discuss adaptations of potential guidelines, and then suggest specific guidelines;
- final higher level approval of the changes;
- identification and training of physician and nurse champions for each guideline; and
- training of clinicians and support personnel that implement the guideline.

The following are some of Kaiser's chronic care management initiatives.<sup>2</sup> Because there is some variation in implementation of a program within the Sacramento service area, the following are descriptions of either the most prevalent or the largest programs.

The *Diabetes Management Program* is the largest care management program in the Greater Sacramento Area, with over 12,000 Kaiser members enrolled. The diabetic clinic provides some initial classes for patients with diabetes and provides care to patients that are more seriously ill. The program is headed by one adult and one pediatric endocrinologist. Other staff include other endocrinologists (as consultants), a dietician, and nine full-time and two part-time RNs (that are also Certified Diabetic Educators). Clinic RNs act in part as patient case managers, which includes tracking patients and coordinating their care, as well as providing direct patient care and health education.

TPMG staff conduct a general surveillance of diabetics (consisting of database review for cases that match criteria), create a registry of diabetics, identify high-risk members, and generate reports to physicians on their patients with diabetes. The PCPs then may refer diabetics to the program, which also obtains referrals from the inpatient setting.

TPMG recently shifted its approach to planned care for diabetics that are not seriously ill. Adult Primary Care (APC) teams are providing more protocol-based care to chronic care patients, including diabetics. An APC consists of six to eight physicians and approximately

three non-physician clinicians, including a nurse practitioner and health educator. Two or more APCs may share a pharmacist, physical therapist, and behavioral medicine clinician. With the shift, the APCs provide enhanced care for most diabetics, including more education (through the team's health educator and classes) and support (including group meetings).

APC physicians refer diabetics to the clinic based on level of care needs. The PCP retains oversight of more stable patients, whereas a clinic endocrinologist takes responsibility for the care of more difficult to manage patients. All patients still see their PCP for other problems.

The program goal is to help the diabetic become as self-reliant as possible through emphasizing lifestyle changes needed in order to cope with diabetes – including how a patient can manage her/his care and obtain support. Program staff remain in close contact with referring physicians, and providing updates on their patient's progress.

Kaiser's *Asthma Care Program* divides asthmatics into three levels. Patients with the most severe asthma (level 3 – including those admitted to the ER or hospital) are enrolled in the Comprehensive Asthma Management Program (CAMP), run by the allergy department. Patients with the least severe asthma (i.e., mild or intermittent (level 1)) are followed by the PCP and mid-level personnel within the APC units. APC patients that have asthma with an allergic component or with asthma that continues to be not well controlled (level 2) are referred to the allergists for evaluation, after which CAMP continues to follow patients with unstable asthma, and refers others back to the APCs for on-going asthma care. The APCs provide all patient care unrelated to asthma.

Each CAMP enrollee goes through a comprehensive 2.5 hour appointment with an allergist, RN and pharmacist. Staff assesses the patient, reviews all medications, develops a care plan (including self-management plan), and instructs patients on appropriate use of medications and on how to use her/his tools, including peak flow meters and inhalers. The allergist sees the asthmatic over time, while the RN currently conducts limited follow-up.

CAMP is in the process of expansion. Two full-time case managers are being hired that will help the APC teams identify and educate patients, suggest those who should be referred to the CAMP for care, and follow closely and counsel those who are high-utilizers and/or high-risk (for six months or until stable). The expansion will enable the program to reach more of the 3,500 higher-risk asthmatics that are members of a registry that Kaiser maintains.

The program has a pediatric focus in South Sacramento, given that its relatively large African American population has had higher pediatric asthma hospital admission rates than do other groups. The RN case managers attempt to involve parents in education and may conduct a home visit. Kaiser staff conduct asthma management training for local schools.

Using National Institute of Health-based care guidelines, the APC units follow most asthmatics. APC pharmacists assist with medication related issues and APC unit staff (RN, clinical health educator, or pharmacist) provide patients with basic education about medications and how to keep asthma under control. Within the APC units, CAMP's physician champion (an allergist) promotes asthma care.

Kaiser staff stated that asthma patients are seen sooner by allergists and indicated that, after program start, the pediatric asthma admission rate had dropped by over two-thirds and the adult asthma admission rate had fallen "substantially," maintaining its relatively low rate into 1999.

Kaiser's *Congestive Heart Failure Program* enrolled 190 patients in the active/maintenance case management program, while the intensive CHF class had enrolled over 500 patients. Patients admitted to the hospital or entering the emergency department due to CHF are referred to the care management program, as are patients referred by physicians. Program staff also monitors hospital admissions for potential enrollees for either care management or classes. For patients meeting the care management program's criteria and agreeing to participate, an RN reviews clinical findings, conducts an assessment/evaluation of the patient (including the extent of self-care) and helps develop a care plan. The RN provides patients with guidelines and instruction on self-care, including what to monitor and what to report

on an on-going basis. For example, the RN may provide special instruction about weight gain in order to be sure that the patient calls the RN or PCP when needed. Although initially the RN may have frequent telephone contact with the patient in order to monitor compliance and check on health status, such contact often decreases as the patient stabilizes. The RN attempts to work closely with the patient's PCP, updating her/him on patient status. A physician mentor (a cardiologist) acts as a close consultant, answering medical questions and acting as the program's champion. Case managers carry out routine aspects of guideline-based care and consult the physician mentor as needed. At this point, a pharmacist is a consultant but not a formal part of the team.

The program is in the process of expansion. Additional case managers are being hired who will focus on increasing the number of CHF patients taking education classes and receiving the most appropriate medications. The program will become part of the Adult Primary Care team effort – in effect, a small disease-focused team that provides support to the APC units. A Kaiser staff stated that hospital utilization has declined for CHF program patients overall, and particularly for patients with repeat admissions or emergency department visits compared to those prior to the program and similar patients not already in the program.

Kaiser's *Anticoagulant Clinic* has enrolled over 2,900 patients in the Sacramento, Roseville and satellite area and about 800 patients in South Sacramento. All clinic patients are dependent on Coumadin, (i.e., they regularly use an anti-clotting drug). Clinic pharmacists work with physicians to adjust medications. The clinic routinely schedules appointments with Coumadin patients, leading to more timely medication adjustments than if a general internist had to make changes with no assistance. Given the highly specialized nature of the anticoagulation clinics, the APC team units are not expected to take over this function in the future.

The *ACE (Access, Comprehensive Care, and Education) Program* is an intensive program in which staff members (a gerontologist, nurse practitioner, RN, social worker, and medical assistant) have taken over the care of 250

frail elderly members with multiple conditions and diseases, and work with both patients and their families.

Other chronic care programs:

The *Lipid Care Management Program* is one of the largest programs at Kaiser, with over 5,000 area members enrolled.

The *Chronic Pain Management Program*, implemented in the psychiatry/behavioral medicine departments, has about 1,000 members enrolled in the Sacramento area. It focuses on pharmacist-directed medication management.

The *Cardiac Rehabilitation Program* has about 200-300 members enrolled.

The *Dementia Care Program* has about 600 patients enrolled. Program staff help identify patients with a dementia diagnosis and conduct uniform workups in order to rule out conditions or diseases other than dementia. Staff also provide counseling and support groups, and help organize and provide respite care. The program emphasis is on care for persons with Alzheimer's disease.

Other *Chronic Disease/Condition Programs* under development include those for patients with depression (outpatient depression management), high utilization, chronic obstructive pulmonary disease, and those who are at the end of life.

## 2. MedClinic Medical Group

The following are some of MedClinic's evidence-based, planned care programs, with enrollment as of September 1999.

The *Congestive Heart Failure* program had enrolled about 400 patients. Instituted in mid-1998, the program focuses on patient education, diet, and medication management. MedClinic staff attempt to identify more seriously ill program patients, including those that have had frequent hospital admissions or emergency room visits and need more attention. After initial patient education, the initiative predominantly is a nurse-run telephone management program, where staff make weekly or monthly phone calls to the patient concerning medication compliance and weight monitoring. Two pharmacists that assist in the

management of medications for MedClinic members also provide help to CHF program members.

A MedClinic physician and the Mercy Healthcare Sacramento cardiac service line medical director jointly champion the CHF management program. The program enrolls patients through physician referrals to the program. Interviewees reported that after instituting the program, admissions for CHF apparently fell by 30 percent for that group of people. Nevertheless, some physicians (especially cardiac specialists) have been reluctant to refer patients, as they feel strongly that they need to control the medication decision for their patients. MedClinic respondents believed that the program has helped PCPs the most. MedClinic hopes to expand the program to nearly all its CHF patients within the next two years.

The *Anticoagulant Clinic* has enrolled over 660 patients. Patients have an initial consultation with a clinical pharmacist, followed by telephone adjustments of Coumadin doses in order to achieve a better therapeutic range for anticoagulation. A study of 45 initial patients showed that 80 percent were in therapeutic range, compared to 65 percent for another group of patients managed by regular physicians.

The *Diabetes Program* has enrolled almost 2,900 patients. The program has operated for about five years. The diabetes team is built around an endocrinologist and nursing staff that provide such services as basic education, insulin instructions, meter instructions, and on-going blood sugar level monitoring. The team also yearly monitors urine for evidence of renal involvement, and facilitates annual eye exams. The program attempts to address each area known to contribute to the long-term health of the diabetic patient.

Diabetics are enrolled in the program for as long as they are MedClinic patients. Since some physicians are reluctant to refer patients to an endocrinologist (when they feel that they can take care of patients themselves), MedClinic has a rule that the diabetes team must see every patient with diabetes for assessment, education, nutrition instruction and self-care advice. Patients then enter an on-going monitoring/phone reminder system. The diabetes team provides PCPs with recommendations on management of their patients at the time of initial assessment and annually thereafter.

MedClinic respondents stated that both patient and physician satisfaction has been high with this program, and that MedClinic has experienced a “striking” reduction in ER and hospital utilization for their diabetic population, although there is no MedClinic-specific research evidence on effects on complications or long-term cost reduction. One on-going issue is who will adjust the patient’s medication regime: PCP, diabetes team, or Endocrinology department.

The *Lipid Management Program* (Heartsmart) has about 250 patients enrolled. The program aggressively manages with lipid agents those patients with hyperlipidemia and known coronary artery disease (CAD), in an attempt to prevent recurrent cardiac or vascular events. The program is based on evidence from large studies which show that keeping LDL cholesterol below 100 prevents recurrent coronary and vascular events. The program intends to provide pharmacy oversight to monitor appropriate medication for the target population.

The *Chronic Pain Management Program* initiative is modeled on a successful program started at Stanford, which focuses on increasing patient self-management skills (e.g., coping and self-help skills), rather than on relying on back surgeries and narcotics. The program has had eight to ten patients at each of the six seminars presented.

### 3. Sutter Medical Group

In 1998, Sutter Physician Alliance members (Sutter Medical Group, Sutter Independent Physicians and Sutter West Medical Group) began active development of guidelines for persons with chronic conditions and diseases.

The *Congestive Heart Failure Program* is farthest along among Sutter’s disease/condition-specific chronic care efforts. As of the end of 1998, the three Sutter-affiliated MDOs had enrolled about 100 patients in their program, and were still building up patient membership. The Sutter MDOs adapted guidelines for the appropriate outpatient management of CHF from the Institute for Clinical Systems Integration, a non-profit organization that has focused on developing outpatient guidelines and measures of compliance with those guidelines.

Another firm (Life Masters) has contracted with the Sutter groups to provide a component of the CHF program that is aimed at seriously ill patients who have had hospital admissions or multiple emergency department admissions or who are documented Class 3 or 4 patients with CHF (4 is the highest level of severity). Life Masters uses a phone-based tracking technology where patients punch in their weight and blood pressure daily and answer questions about symptoms over the phone. Nurse case managers follow the patients’ progress. If there’s a “red flag” – i.e., patients fall outside of the acceptable parameters for weight change or blood pressure or symptoms – patients get a phone call and/or a referral to their physician. Life Masters sends the Sutter physician organizations reports at the end of every month that lists patients that Life Masters is following, including whether or not patients fell outside of treatment parameters or a referral physician notification was sent. Life Masters is capitated on a per case basis. Although it is not at-risk for hospitalization, it has to provide a specified set of services to patients that enroll in the voluntary program.

The *Chronic Care Program* was tracking approximately 700 frail, mostly older Medicare members (as of September 1999). The program’s nurses and social workers conduct home assessments, engage in on-going telephone-based enrollee monitoring, make recommendations to PCPs and keep the latter informed about problems that develop. Program enrollees are identified by: a) physician assessment and referral; b) hospital case manager referral (for hospitalized patients); c) repeated hospital admissions or ER visits, or d) answers to a health risk screening tool that is administered to all new Medicare members. A Sutter interviewee stated that the program has decreased use of some key acute care services (hospital, ER, office visits to PCPs and specialists) and increased use of home health care, lab and ancillary services.

The *Coumadin Clinic* is being expanded to more offices, after previously being confined to cardiologist offices.

Sutter is developing a Chronic Obstructive Pulmonary Disease program which is expected to be operational in 2000. Sutter also is developing breast cancer and asthma guidelines that will be monitored, with feedback on

performance provided to clinicians. Chronic care programs (that involve guidelines and support personnel) under discussion and development include those for asthma and diabetes.

#### 4. Hill Physicians

Over the past year, Hill Physicians launched three guideline-based, disease management programs in the Greater Sacramento area for patients with CHF, diabetes, and asthma, in addition to other guideline-related initiatives that focus on screening (e.g., regular mammograms, pap smears, and glaucoma testing).

The *Congestive Heart Failure, Asthma, and Diabetes Disease Management Programs* have similar features. For each disease, Hill uses information from encounter data – including diagnoses, emergency room visits and inpatient hospital stays – to identify a high-risk population that is divided into three groups or levels. Hill Physicians has generated personalized reports for its physicians on over 3,000 members with the three diseases. Hill offers level 1 patients health education classes that vary from one-on-one discussions to small groups. Hill attempts to enroll levels 2 and 3 patients into an individual case management program – for example, all enrollees that had two asthma encounters (inpatient admissions or ER use), or who were referred by Hill Physicians’ providers or health educators. A program case manager contacts the treating physicians (for example, PCP, cardiologist, or endocrinologist) to see what more can be done for the patient, and then attempts to see that they follow up with the patient. The case manager contacts each patient in order to determine learning needs and investigate support issues – for example, who the care givers are, what long-term care needs exist, whether or not community resources can meet some of those needs, and if advance directives have been arranged. The goal of the current case management programs is to provide short-term interventions, rather than provide case management for years.

Hill Physicians includes interventions for the provider as well as the member. For example, Hill Physicians developed and distributed asthma clinical guidelines to all providers, and allergy specialists and a pharmacist conducted education programs for PCPs. The

organization conducts an on-going clinical guideline audit in order to evaluate provider adherence to the guideline. Providers that have sufficient members with asthma receive report cards that compare how an individual practice compares with its peers in the treatment of asthma, including statistics on inpatient admissions, ER use and outpatient visits for asthma. As part of monitoring CHF guideline adherence, Hill Physicians sends a report to physicians with feedback on treatment performance, including the percent of that clinician’s patients with CHF that are on ACE inhibitors, as well as information on patients that are not taking ACE inhibitors.

The effectiveness of the disease management programs remains to be determined. For example, inpatient admissions for asthma recently have increased for the adult population. On the other hand Hill Physicians’ believes that the redesign of its pediatric asthma class – which introduced “Wheezy the Walrus” and an interactive class for children and their care givers – resulted in an increase in class attendance and a subsequent decrease in ER and outpatient visit use for children under 17 (a 30 percent drop between 1997 and 1998). Hill Physicians staff also state that the rate of use of ACE inhibitors has increased since the start of the CHF program.

Hill Physicians is introducing a new program for patients with depression, and is developing programs for the frail elderly, back care and cancer care.

#### 5. University of California, Davis (UCD)

UCD is in the process of aggressively assembling elements of several evidence-based chronic care programs. As one informant put it, “we have a number of the pieces there. We recognize the need to develop the mechanism to sew them together. We’re developing the infrastructure to do just that.” As of the end of 1998, UCD already had developed guidelines for diabetes, asthma and low back pain. It has begun to identify specific risk groups and was holding organized programs for clinical education for these and other diseases and conditions. It has begun to develop a pediatric asthma program, starting with a survey of the patient population and physician education.



### **Changing clinical processes is exceptionally difficult**

Clinical process change is so difficult because knowledge workers (physicians, nurses) need to change how they perform their work. The top-down, process reengineering approaches so common for non-knowledge work, does not work well for knowledge workers.<sup>9</sup> Such knowledge work process changes are disruptive and can lead to conflict with MDO management. Change involves examining all existing care processes, deciding on how to identify target enrollees, how to refer patients to the program, how the patient will interact with physician and non-physician clinical personnel and administrative staff, and how staff will interact with each other and with various ancillary services (e.g., lab, radiology, pharmacy) and non-covered services (e.g., social services within a community). As indicated above, the roles of nurse practitioner, other non-physician personnel, PCP, and specialist will vary, according to disease and model of care adopted.

MDOs need physician “buy-in” for the change – physicians need to understand the goal of the change and why it is likely to improve outcomes – because physicians must be engaged in the change process if the change is to succeed. As a result, physician leaders need to be heavily involved in quasi-democratic organizational structures that decide what processes to change and how to change them, and then communicate constantly with “line” physicians. Otherwise, physicians have numerous ways of not implementing the protocols – and if the demands on them are too onerous, they can leave the organization.

This high level of required physician participation tends to make developing guidelines and protocols an especially slow and time-consuming process. One interviewee talked about doctors insisting on “reinventing the wheel” or “getting their fingerprints” on the clinical and operational content of the protocols.

The issue of changing knowledge work processes is complicated because there is not yet agreement about the scope of work of PCPs as opposed to specialists in some organizations and specialties – i.e., how much a PCP rather than a specialist should do in treating persons with specific conditions and diseases. As one interviewee noted, it can be hard to find the appropriate balance for PCPs and specialists because in the old FFS

systems, PCPs were triagers, while specialists managed most major and minor patient problems. Some organizations have tried to modify that behavior somewhat, leading to some resistance and tension over doing so. At least one organization has a rule that a PCP must have tried to manage the patient for at least a brief time before turning the patient over to the specialist.

### **Challenges in implementing evidence-based, planned care in Sacramento Area physician organizations**

Clinical practice change has several key prerequisites. Getting those prerequisites “right” and having them fit together well presents numerous challenges. The entire effort can be as, or more, difficult than efforts to change production processes in other sectors of the economy. As a result, there are many reasons why organizations are not as far along as they could be in implementing evidence-based, planned care.

In order to change clinical practice, five factors that appear to be critical include:

- clinical information systems that provide the data to facilitate changes;
- effective governance – i.e., a group of respected leaders and committees that can make numerous difficult decisions and then implement the changes. Also needed is sufficient organizational cohesion to support and facilitate the changes. In particular, clinicians have to be willing to implement planned care;
- intellectual capital – i.e., an accumulation of past experience and knowledge in working with protocols and making similar changes;
- aligned incentives – i.e., if a protocol calls for increased PCP involvement in care, the PCP has to be compensated for the increased effort;
- financial capital that can pay for the changes, including “up-front” costs of change and new information systems.

#### 1. Clinical information systems

Limitations in information systems clearly are an impediment to providing better care. All MDOs have been dependent on paper medical records, which have numerous problems – including information that is

unavailable, missing, inconsistently recorded, illegible, or difficult to find. However, all MDOs were attempting to improve the data that they could capture and present to physicians at the point of care, as well as analyze in order to determine where, when and how to change clinical processes and clinician behavior.

Clinical information systems, and especially electronic medical records (EMRs), can be a powerful aid in changing the process of delivering patient care. Electronic aids help identify patients with specific clinical conditions, and provide past patient clinical information, reminders, and alerts. EMRs with decision support capabilities can provide “just-in-time” information and knowledge at the point of care, while decision making and treatment is underway. They also permit more extensive, detailed, and timely performance monitoring and feedback to clinicians on compliance with protocols, and can help determine a program’s effects on outcomes and costs. (For example, was the program worthwhile to do, did it improve care, and what did or did not “work?”)

Both enhancements to existing systems and implementation of EMRs (which can result in more detailed clinical data, better merging of data into data warehouses, and much improved analytic capabilities) can greatly assist in monitoring and providing feedback on protocol adherence and outcomes. As one physician manager put it, “Data is the strongest motivator for change.”

All organizations were attempting to upgrade their information systems.

The Kaiser Permanente “system-wide” organization, based in Oakland, continues to develop and evaluate two types of electronic medical records that might be used in all of its regions. Kaiser Permanente already has installed different electronic medical records in the Portland, Denver, and Cleveland areas that are among the most advanced anywhere in the country. However, it has not yet set a timetable for implementation of an EMR for its northern California operations, including the Sacramento service area. Kaiser is building on a strong base of existing “legacy” systems: it provides a substantial amount of electronic clinical data to its physicians at the point of care, and has linked and extensively used its databases to analyze physician, team,

and facility performance and identify opportunities for process improvements.

MedClinic has added more clinical data elements to its encounter forms, and is implementing online transcription (i.e., dictation that the clinician can view). It has been attempting to implement a long-standing effort to computerize its pharmacy system in order to improve tracking and formulary compliance. In the latter, physicians would enter their prescriptions electronically at the point of care, and get back alerts about drug-to-drug interactions and correct dosage and suggestions about alternative drugs. It is also attempting to create a master patient index that would allow patient identification and data linking across site of care (e.g., inpatient, outpatient clinic, nursing home, and home care). Given its efforts, MedClinic sees itself as creating an electronic medical record “piece-meal.”

Hill Physicians appears to be heavily relying on improved data capture, analysis and feedback in order to change its clinical practice patterns. As one manager put it, each physician was seeing not just “the” data but “their” data – i.e., the performance of that physician in relationship to the physician’s peers. Hill has a very large claims processing operation – over 2.5 million claims per year – with potentially much data that can be “mined” in order to understand the performance of the organization, groups of clinicians, and individual clinicians, including by type of patient.

As a large IPA (as opposed to medical group), Hill Physician’s efforts to improve its information systems are particularly interesting. Hill is building on its existing data in three ways. It is attempting to:

- a. Better use existing clinical data by creating a clinical data repository that will integrate various types of data that it already has – i.e., office visit information, pharmaceutical use, some lab and hospital utilization information – in order to permit improved analysis and feedback.
- b. Capture more clinical data by building upon its current claims forms. Hill will require additional clinical information, first on its claims forms, and then for referrals and service authorizations. Hill may require other clinical information on separate

forms for persons with specific conditions and disease.

- c. Create a Web-based electronic commerce environment, in order to link physicians with the MDO and exchange increasing amounts of information, through claims, referrals, and authorizations. In a joint venture with Healthcon Corporation – which will provide the technical expertise – Hill is aiming at creating Web-based electronic submission of authorizations, as well as real-time replies to those submissions (based on computerized criteria/algorithms for each type of authorization). This could lead to transmission of substantial clinical information throughout the system. For example, when a doctor refers a patient to a neurologist, she would send the referral electronically and transmit the clinical information necessary to support the referral. The neurologist then could report back to the PCP electronically as to his findings, treatment plan, and other issues. That information exchange could become the basis for a common electronic medical record.

Hill Physicians' path to an electronic medical record is more difficult than for the area's medical groups, since it only has a portion of its physicians' clinical business. EMRs are expensive, in terms of hardware, software, training costs, and initial lost productivity, so it is harder to implement when an MDO has (say) 20 percent of a physician's income, rather than 100 percent. As a result, Hill Physicians sees its EMR as the end result of a series of changes connected to its goal of creating an electronic commerce environment.

Sutter Physician Alliance has created a data warehouse (repository of linked clinical information) and is starting to use analytic capabilities that permit analysis of utilization and some quality performance at the level of the Alliance, physician organization, specialty or physician sub-group, and individual physician. For example, it permits a PCP to see how she is handling diabetics in relation to other PCPs. Sutter West Medical Group is implementing an EMR from Epic System. The medical group's effort is part of a larger Sutter Health EMR initiative that includes Sutter Health's Palo Alto Medical Foundation. The Epic EMR is one of the most comprehensive available, with "real-time" clinician data

viewing and entering, as well as the capability of providing clinicians with reminders and alerts. All data from the new and existing systems will be warehoused in a clinical data repository. That data then could be analyzed, and fed back to individual clinicians and groups of clinicians.

In 1998, UCD had been planning to implement an electronic medical record that would focus on its hospital but also be "rolled out" to its PCP offices. UCD had issued a request for proposals, had demonstrations for enterprise scheduling and clinical information systems, and had hoped for implementation of a new system by the year 2000. However, UCD concluded that none of the alternative systems were developed sufficiently, given UCD's needs and the system costs. Instead, UCD decided to consolidate existing electronic reporting systems, including creating a common patient identifier across systems. In current UCD plans, data from existing systems will feed into a central data repository (database or data "warehouse") that would store information from different sources, creating the opportunity for extensive analysis and serving as a basis for further clinical information systems development.

Opinions differed greatly across the health care systems about the payback to information systems that could improve quality. One informant stated that although better information systems save some money, it "doesn't pay for itself – in the short-term, you don't get a big return on the investment."

The problem of inadequate CIS is closely linked to the difficulty of achieving effective governance, changing knowledge work processes, and having adequate financial and intellectual capital.

## 2. Effective governance

Within physician organizations, individual clinician leadership and an authoritative quality committee infrastructure is essential because numerous difficult decisions must be made that affect how physicians work. For example, decisions must be made about: which conditions or diseases to address; what guidelines to adopt and how to adapt them; how to turn general guidelines into specific protocols for care delivery processes (e.g., not only what to do if a patient has a

*In the Greater Sacramento Area, organizational longevity varies greatly – from 35 years (TPMG in Sacramento), to 15 years (MedClinic), to five to seven years as medical groups (UCD’s Primary Care Network and Sutter Medical Group, respectively).*

certain A1C hemoglobin level, but who undertakes what actions, when, where, and how); how to promulgate and “roll out” the guidelines to clinicians; how to monitor care process changes and change protocols as more is learned about what “works” and what does not; and how to enforce the changes.

In the Greater Sacramento Area, organizational longevity varies greatly – from 35 years (TPMG in Sacramento), to 15 years (MedClinic), to five to seven years as medical groups (UCD’s Primary Care Network and Sutter Medical Group, respectively). That is, several Sacramento area MDOs are relatively new – their physicians do not have lengthy experience in working in larger groups, with each other, or with organized care delivery processes. This can affect the pace of clinical process change within an MDO.

The process of creating and establishing both recognized leaders, as well as functioning and authoritative committees, takes time under any conditions. But it is particularly difficult in newer MDOs where many physician members were used to running their own enterprises in solo or small group practice, and continue to be scattered in dozens of practice sites – making it more difficult to foster interactions and a sense of collegiality among colleagues. It also makes it more difficult to choose leaders, including representatives to key committees that have to make important decisions, and more difficult to forge agreement about key actions that need to be taken.

### 3. Intellectual capital and past experience with capitation

Groups that have functioned under capitation for a longer period of time tend to have more developed organizational structures and reengineered care delivery processes than do other organizations. Those changes are in part responses to the financial incentives (and potential penalties) of capitation that forces MDOs to achieve efficiency by examining and changing their care delivery and administrative processes.

Past experience is helpful in changing clinical practice because MDOs ascend clinical practice change “learning curves.” Experience gained in one area helps an organization in another area because the processes of making changes in care delivery processes have some similarities across conditions and diseases. This accumulated understanding of how to identify business and clinical processes that need to change, determine how to change those processes, and then implement the changes can be seen as a form of “intellectual capital.”<sup>10,11</sup> Intellectual capital can be as scarce as financial capital – or in some cases, it can be the scarcest of all resources.<sup>12</sup>

The TPMG Sacramento service area’s relationship to the TPMG and The Permanente Federation (a nationwide policy-setting body of all Permanente medical groups) is important, in that it can learn from other parts of a larger organization. The Sacramento service area TPMG is firmly integrated into the much larger Northern California entity, which engages in Northern California-wide initiatives. Hill Physicians’ Greater Sacramento Area operations are integrated into those of the larger Hill Physicians entity, which

covers the San Francisco Bay Area and Sacramento, and also has organization-wide initiatives.

Other Sacramento area MDOs vary in the extent of their opportunity to learn from other affiliated entities. The UCD Primary Care Network is a local organization that is not part of a larger PCP organization. Whereas UCD's Primary Care Network and Faculty Associates are two sub-groups within the same group, the latter acts as a type of separate specialist network to the Primary Care Network, and the two physician organizations still are learning to work together. Through the Sutter Physician Alliance, the three Sutter MDO operating units (SMG, Sutter West Medical Group, and Sutter Independent Physicians) are beginning to act in concert, but none of these organizations has long histories. Moreover, the Sutter Physician Alliance has relatively loose relationships with other Sutter MDO operating units within the Sutter Medical Foundation. Mercy's two main physician operating units (MedClinic and Woodland Clinic Medical Group) function separately and do not have a strong operational relationships with other entities in the Catholic Healthcare West (CHW) Medical Foundation.

#### 4. Aligned financial incentives

The extent to which an MDO is oriented to capitation – i.e., that its incentives are aligned to produce low-cost, high quality care for capitated enrollees – also can affect the pace of clinical process change, and is closely related to the history of the organization. For the five medical groups affiliated with Sutter Health, Mercy Healthcare Sacramento, and UCD, dual payment methods that have opposite incentives for physician behavior complicate MDO efforts to orient to capitated enrollees. Dual payment methods include capitation from HMOs for some enrollees, and fee-for-service (FFS) from other types of plans and Medicare for other enrollees. Most organizations prefer to orient their day-to-day operations and practice styles either towards HMO *or* FFS, but not both. For example, the more an organization orients toward services for capitated (HMO) enrollees, the more likely it is that organization will not maximize its FFS revenues, because greater efficiency due to an HMO-oriented style of care can

mean fewer services provided to FFS patients. In turn this means less FFS reimbursement. This dependence on two types of payment can slow down clinical practice changes that emphasize across-the-board reductions in utilization.

The same MDOs' attempts to orient to capitation (and change clinical practice) is further complicated by the fact that hospital systems "grew" them in order to assure referrals to the hospital systems, rather than simply make a profit or loss through delivery of physician services to capitated enrollees. UCD has been the most open publicly about this strategy. Because Sutter, Mercy, and UCD are predominantly hospital systems, more than they are "integrated delivery systems" oriented to capitated enrollees, their MDO operating units are expected to contribute to the larger objectives of the hospital-led system, in addition to the MDO's own objectives. It is more difficult to affect one, consistent style of clinical practice when a group faces incentives to admit to a hospital for one group of enrollees (fee-for-service) and disincentives to admit for another group of enrollees (HMO). The potential move by some hospital systems back to per diem (daily) payments for hospital services (leaving the affiliated MDOs with capitation for professional services) would further complicate MDO orientation towards capitation. In that arrangement of (non-aligned) incentives, the MDO would have incentives to reduce hospital days, whereas the hospital would have incentives to increase them.

In contrast, TPMG and Hill Physicians enrollees are almost 100 percent capitated, and both are focused on reducing admissions. Neither has an objective of "feeding" patients to hospital systems.

#### 5. Financial condition and financial capital

It is hard to discuss any changes without a discussion of the MDO's finances and access to capital. Most MDOs are either losing money or were losing money recently.

The intensely competitive, difficult financial environment in which MDOs must operate can both hasten and hinder clinical process change. Economic difficulty can provide an impetus for difficult change – more so than if the organization already is prospering –

because MDOs are motivated to implement evidence-based, planned care in areas where they can lower the costs of treating enrollees with high-cost conditions or diseases.

However, it can be more difficult to make investments to pay for clinical practice change under conditions of financial crisis and shortage. At a minimum, these process change costs can include substantial leadership and physician time (and thus cost) in developing and implementing the guidelines, as well as initial lost productivity as new processes are phased in. They also can involve the cost of new facilities, and changes in information systems, if such changes are needed to facilitate the clinical process changes.

As one informant put it, his organization is trying to undertake pilots of innovations without much money – so his organization might field only a three month pilot (which is very short) and then decide what to do. “There’s no margin in health care. If you waste \$250,000, you can’t get it back,” so that any “up-front” costs can have an important effect on the organization. This means that MDOs may not decide to pay for either a pilot or implementation of a new program, unless clear benefits can be obtained quickly. Whereas the “payback” period for an investment may be five or more years in other industries, it seems to be 12 months or less in some MDOs.

Moreover, substantial losses could weaken the ties that bind the MDOs to their parent organizations, creating uncertainty that could lessen longer-term parent firm investments in the MDOs. As of mid-1999, MedClinic was looking for another “partner” or parent outside of Mercy Healthcare Sacramento, such as Hill Physicians or Phycor. Finally, with the demise of several key physician practice management companies, there are fewer non-hospital options available to MDOs for obtaining capital for clinical process change.

#### **MDO views on competition based on quality of care**

The June 1997 report on the Greater Sacramento Area health care sector emphasized the importance of creating a competitive market in which health plans and providers compete for enrollees based on quality of care that they produce, rather than simply on cost. The goal is to create a set of consistent “aligned” economic

incentives that would lead to improvements in quality of care. Currently, there is little competition based on quality. Only a limited number of quality indicators are measured and reported, including indicators required of health plans by NCQA. Moreover, many measures are reported at the health plan and not the MDO or health system level, although the Pacific Business Group on Health has begun to require MDO-specific “report cards” for a limited number of measures.<sup>3</sup>

A market with competition based on quality of care would have the following characteristics:

- much improved measurement and reporting of quality of care indicators that would enable consumers to choose health care providers based on their quality of care – as well as satisfaction – performance. Currently, NCQA, the Foundation for Accountability (FACCT), and others have developed satisfaction and quality of care measures that could supplement those currently in use, but that have not yet been implemented.<sup>13</sup>
- a comprehensive campaign to educate consumers about indicators of quality. Such a campaign would parallel the growing efforts by some consumers to better understand their care in order to participate in care decision-making and better self-manage care.
- risk-adjusted payment rates that would pay provider organizations more for enrollees with predictably higher-cost conditions and diseases, and less for enrollees that are predictably lower-cost. For example, a system that paid MDOs more for persons with CHF or breast cancer would create an incentive for MDOs to compete based on quality and satisfaction in order to attract persons with higher-cost conditions, with their higher payments. If the extra payments were sufficient, MDOs could profit through their excellence – rather than incur losses, as is the case under the current system that does not adjust provider payments for health risk status. Once again, there are some “off-the-shelf” payment methodologies that could be implemented now, even as better methodologies are under development and could be tested.<sup>14</sup>

Sacramento-area MDO manager attitudes vary greatly about the extent to which competition based on quality of care would “work,” even if MDOs could produce

*Some recent experience in the Greater Sacramento Area market suggests that economic incentives could have an effect on quality improvement efforts.*

much more detailed clinical data to meet enhanced reporting requirements. Some interviewees doubted that consumers would understand enough about quality of care to be able to choose plans or providers based on their quality performance, rather than simply on satisfaction with service (e.g., wait times for appointments or politeness of staff).

Some interviewees also doubted that employers (on behalf of their employees) would choose plans and providers based on quality of care, as opposed to price or service, despite the fact that specialized staff in human resources departments are in a better position than are consumers to understand quality of care measures. Some MDO managers felt that employers were willing to believe that quality was adequate and similar among providers, and that all that counted was minimizing enrollee complaints about service. They stated that they were concerned that no one wanted to pay for quality improvement, yet some quality improvement efforts can have high initial “up-front” costs, and other efforts might lead to higher – not lower – on-going costs.

On the other hand, several interviewees were mostly positive about the potential effect of quality measurement and reporting on the market – in particular, some strongly believed that consumers could understand quality and would move from one organization to another based on quality results reported.

Moreover, some interviewees noted a change in the attitude among MDOs and physicians towards measurement of quality of care. As one interviewee stated:

“Twenty-five percent of the health care establishment wasn’t dealing or really looking at quality issues. So the NCQA is addressing this. When they started doing it, doctors said that “this isn’t quality.” We said, “Fine, you tell us what to measure, but not measuring anything is not an option.” Now physician groups are starting to be more proactive. They’ve come to accept that not being measured at all is not going to happen. There are some things about it that are useful. It is analogous to report cards in school. They don’t have a perfect correspondence with the ability or the motivation of students – yet it’s certainly an indication of performance. Overall it’s been necessary. If we’re smart we’ll continue to be more proactive and move in the direction that clinically seems to make the most sense from a quality standpoint. It had to happen.”

Some recent experience in the Greater Sacramento Area market suggests that economic incentives could have an effect on quality improvement efforts. For example, Kaiser’s annual campaign to accomplish certain objectives is driven in part by financial incentives to meet or exceed certain National Committee for Quality Assurance (NCQA) reporting requirement targets. If Kaiser does well

on the goals, it potentially can attract new enrollees from other plans, whereas if Kaiser misses these goals, then according to contracts signed with PBGH, it has to refund money to PBGH. Although not the only motivating factor behind Kaiser’s highly organized “six objectives” campaign, the financial incentives clearly have real importance.

The Kaiser Permanente example also highlights the importance of reporting quality of care scores at the medical group, and not just at the health plan level. Whereas the performance of Kaiser Foundation Health Plan/TPMG performance is clearly reported when health plans are compared, the performance of other medical groups is not. Given that capitated medical groups control the delivery of care, reporting only at the health plan level weakens the direct incentives that individual MDOs face to improve scores. Although some HMOs provide incentives for better performance, the direct incentive to win greater market share through measured performance improvement is missing.

Interviewees disagreed about the usefulness of risk-adjusted payment rates because there will be MDO “winners” and “losers” once such systems have been adopted. For example, UCD claims that, compared to other MDOs, it attracts sicker than average HMO enrollees because of its status as an academic health center, with numerous faculty specialists and sub-specialists. Meanwhile, interviewees from two MDOs argued that it didn’t matter whether or not risk-adjusted payment rates were implemented, given characteristics of their enrollee population – that increasing income, not redistributing it – was most important. HCFA’s plan to risk-adjust HMO payments in part based on number of enrollee hospitalizations was generally seen as creating strong perverse incentives for more, rather than fewer, hospital admissions.

### **Recommendations on next steps**

Foundations have numerous choices about where to allocate “marginal” dollars in the health care sector. This report suggests several different types of choices, ranging from short-term choices that involve small amounts of funds and can be implemented quickly to longer-term choices that involve much more in resources and time.

Whereas some of these choices were outlined in somewhat greater detail in the previous health system report, others are new.

If the current managed care “natural experiment” is to have a happy ending, consumers must see real quality of care improvements soon – they must see both efforts to improve quality and the results of those efforts. To accomplish that, market incentives have to change. First, consumers must have information to be able to choose, based on quality and service, between HMO and non-HMO plans, and among MDOs. Second, MDOs must be rewarded for providing excellent care to higher-cost enrollees.

Short-term projects include the following:

- Descriptions of MDO clinical practice changes that are aimed at consumers. Current information biases can influence consumer choices about HMO versus non-HMO plans. Whereas consumers receive a stream of media “horror stories” about managed care, they receive little information on positive steps that MDOs are taking to improve quality for HMO enrollees. As a first step, the Foundation could sponsor public meetings where managers from the largest MDOs could describe their most recent initiatives to improve quality of care. The Foundation also could publish more detailed descriptions of these MDO initiatives.
- Descriptive comparisons of MDO clinical practices. Clinical practice descriptions could be published (in print and on the web) in a guide that consumers could use to help choose provider organizations. Such comparisons would require comparable descriptions across MDOs about selected clinical activities – information that would require MDOs to invest some time in fully reporting on their activities and stakeholder agreement about the usefulness of each type of description.
- Determination of financial status of MDOs. It is difficult to discuss clinical practice changes without discussing MDO financial performance. However, nobody really knows what those finances truly are, especially for MDOs within systems that are hospital led. Obtaining this kind of information



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might have to wait for statewide changes in financial reporting for MDOs. The Integrated Healthcare Association recently made a “core” recommendation that organizations develop “standardized ways to assess and publicly report the operational and financial performance of delegated entities.”<sup>15</sup>

Medium-term and larger projects include the following:

- Measurement of the effects of clinical practice change efforts. In theory, more systematic care should mean lower utilization and improved patient satisfaction and quality of care health processes and outcomes. However, there is very little hard evidence that most of the disease management programs “work” in terms of improving outcomes and reducing utilization, and even anecdotal accounts of utilization effects were not completely consistent. The Foundation could fund studies that could utilize existing data to begin to determine the effects of changes on outcomes.
- Evaluation of improved information capabilities. Related to the above, the costs and benefits of introducing electronic patient records (e.g., in Sutter West Medical Group), “e-commerce” capabilities (e.g., in Hill Physicians Medical Group), and standardized methods of exchanging information, should be studied and reported on as soon as possible. Information systems can be costly, and unless there are clearly documented benefits, MDOs will continue to lag in implementing new systems that potentially could help change processes and facilitate data generation for outcomes reporting and risk-adjusted payment rates.
- Consumer education. If consumers are to help drive quality improvements, they must become more educated about the meaning of quality of care measures. Although consumers are becoming more knowledgeable about health care in general – especially given the ease with which they can obtain information via the Web – they need much more education. Consumers must be in a position to understand specific quality of care measures in order to “vote with their feet” – i.e., switch physician organizations based on their quality of care performance scores.

Longer-term and larger projects that would require multiple funders and substantial stakeholder agreement (especially leadership on the part of purchasers) include evaluating pilot projects that use improved outcomes measurement and reporting and risk-adjusted payment rate methodologies, and then evaluating the effect of new programs with those methodologies.

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## FOOTNOTES

<sup>1</sup> The California Public Employees Retirement System (PERS), which covers over 1 million workers and is considered a bellwether for HMO premiums for other employees, agreed to HMO premium increases of an average of 12 percent in 1992 and 6.9 percent in 1993, followed by four consecutive year of premium decreases (-0.4 percent in 1994, -0.7 percent in 1995, -5.3 percent in 1996, and -2.5 percent in 1997). Average HMO premiums increased by 2.7 percent in 1998 and 7.3 percent in 1999 and will increase by 9.7 percent in the year 2000.

<sup>2</sup> Kaiser has engaged in two major sets of initiatives. In addition to the disease-management programs that we describe below, Kaiser annually sets facility-specific goals for changes in preventive care in such areas as cervical cancer screening, childhood immunization, hypertension screening, mammography screening, prenatal care in the first trimester, and adult immunizations (flu shots).

<sup>3</sup> PacifiCare has released MDO – specific “report cards” on risk-bearing physician organizations within California, some MDOs have argued strongly that because the quality of data provided to Pacificare varies from MDO to MDO, the current statistics produced may be quite inaccurate for some MDOs.