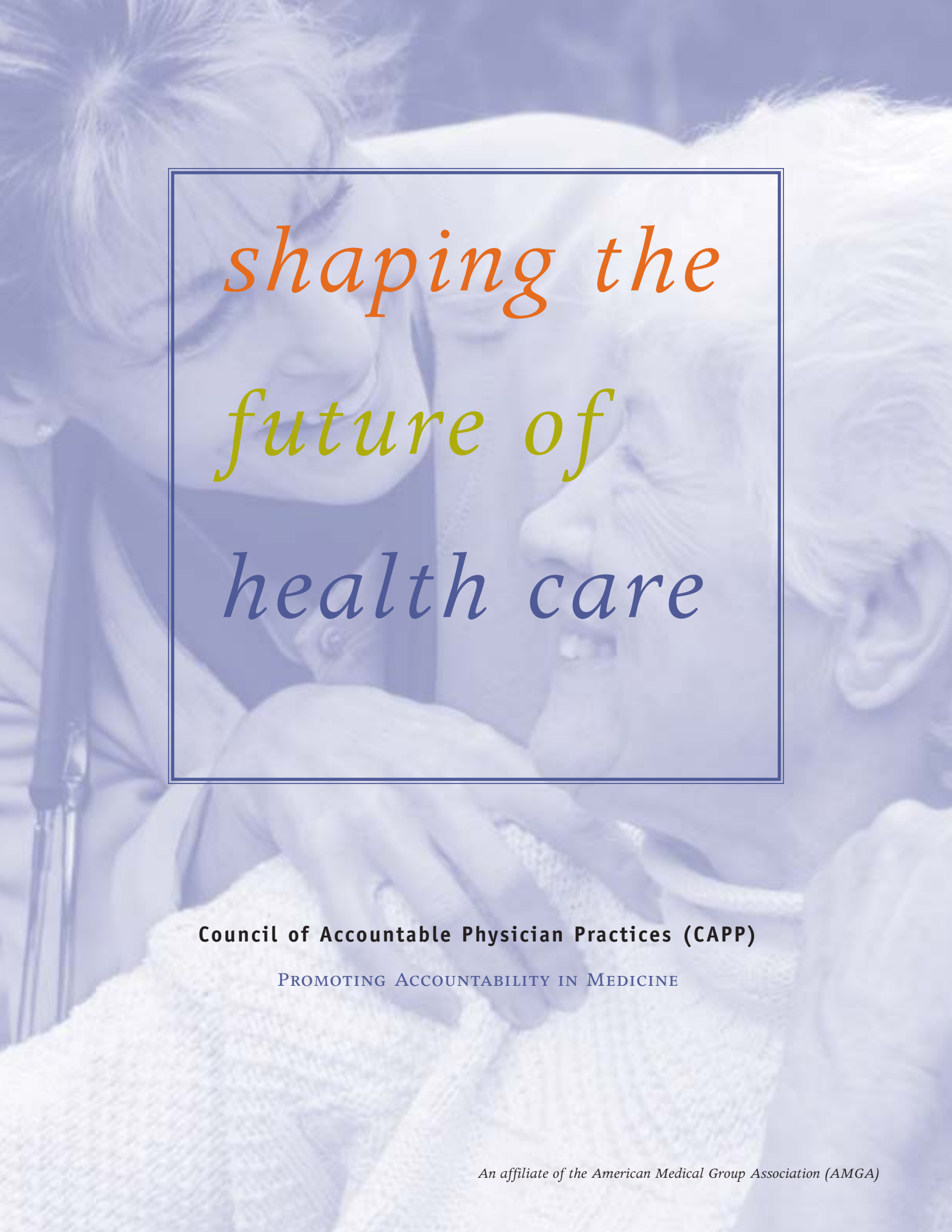


shaping the future of health care

Council of Accountable Physician Practices (CAPP)

Promoting Accountability in Medicine

An affiliate of the American Medical Group Association (AMGA)

finding:

On average, only about half of all Americans receive recommended treatment for their condition. These deficits "pose serious threats to the health of the American public," states a study by Elizabeth McGlynn, Ph.D., et al in the *New England Journal of Medicine*.

finding:

"The American health care system is the poster child for underachievement… The largest limiting factor is not lack of money, technology, information, or even people but rather lack of an *organizing principle* that can link money, people, technology, and ideas into a *system* that delivers more cost-effective care (in other words, more value) than current arrangements," say Stephen M. Shortell, Ph.D., and Julie Schmittdiel, M.A., in *Toward a 21st Century Health System*.

finding:

Fundamental changes are needed to transform health care in America. "Trying harder will not work," says the Institute of Medicine, in *Crossing the Quality Chasm*. "Changing systems of care will."

Preventable Deaths and Costs as of 2003

Recommended Care	Deaths	Hospital Costs (in millions)
Controlling High Blood Pressure	28,300	$1,242.8
Diabetes HbA1c Control	13,680	$178.5
Smoking Cessation	2,700	$97.7
Cholesterol Management	6,600	$94.2

Source: National Committee for Quality Assurance, *The State of Health Care Quality 2003: Industry Trends and Analysis*

solution:

Accountable physician practices are groups of physicians from a range of specialties who practice together. Their collaboration with each other and their patients improves clinical outcomes and enhances quality of life. A hallmark of these physician practices is frequent communication and consultation among team members, and a commitment to continuously evaluate the best ways to deliver care.

Accountable physician practices are organized to provide high quality care through continual learning, quality measurement, and improvement. They are health care delivery systems, with the ability to track and monitor patient health status, and coordinate care accordingly. Accountable physician practices can be found in most major metropolitan areas of the United States as well as in some rural areas. Combining innovative, proven methods with powerful new technology, these physician practices meet patients' needs by keeping them healthier, intervening earlier, and using resources efficiently and effectively.

The Council of Accountable Physician Practices

The Council of Accountable Physician Practices (CAPP)* is a consortium of the nation's most prominent multispecialty physician practices. By stimulating research, demonstrating best practices, and proposing innovations in health policy and financing, CAPP seeks to help transform the American health care system.

CAPP participants strive to promote a system that is more accountable to patients, consumers, and purchasers. They believe that accountability in medicine is a commitment to excellence in every facet of the health care experience, as judged from the perspectives of patients, providers, purchasers, and the public.

Following are just a few examples of how accountable physician practices are making a difference in health care. For additional information, visit **www.amga.org/CAPP**.

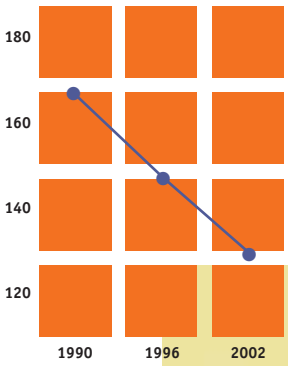
**CAPP is an affiliate of the American Medical Group Association (AMGA).*

Cardiovascular Care that Saves Lives The Permanente Medical Group in Northern California has developed a proactive and disciplined approach to managing cardiac rehabilitation and all of the major risk factors for coronary heart disease. The cumulative effect of aggressive risk factor management of high-risk patients, as well as implementing multiple interventions simultaneously after a patient's heart attack — for instance, smoking cessation, reducing blood pressure and cholesterol levels, and use of aspirin, statin, and beta blockers — resulted in a 22 percent reduction in deaths from heart disease among Kaiser Permanente Northern California (KPNC) members between 1990 and 2002. The death rate declined so significantly that heart disease is no longer the leading cause of death for the KPNC membership. In fact, KPNC members have a 30 percent lower chance of dying from heart disease than non-members.

SUCCESS FACTORS
Emphasis on prevention and disease management
Care delivery innovations

These substantial achievements have been made through rigorous tracking and monitoring of heart disease patients, health education, lifestyle counseling and medication management for cardiac patients, outreach, and ongoing physician education and communication. An intranet database flags members needing follow-up appointments or tests, medications and dosages, dates for inpatient admissions or Emergency Department visits, high-risk status, participation in care management programs, health education class attendance, and scheduling for flu and Pneumovax™ vaccines.

A 2002 study conducted by the California Office of Statewide Health Planning and Development confirmed that patients admitted for heart attacks in nine KPNC hospitals have a significantly greater chance of survival than do patients at other California hospitals.



Heart disease mortality (per 100,000 age-sex adjusted only)

Heart disease is no longer the leading cause of death for the Kaiser Permanente Northern California membership.

Improving Outcomes for Inpatients Two-thirds of hospitals with more than 200 beds use hospitalists — physicians trained in internal medicine or family practice who specialize in hospital inpatient care. HealthCare Partners Medical Group (HCP) in Southern California has developed its own cadre of hospitalists, whose care is resulting in positive health outcomes for patients and cost-effective performance that exceeds published benchmarks.

SUCCESS FACTORS
Performance improvement culture
Collaboration across disciplines

HCP hospitalists are experienced in all aspects of hospital care, ranging from emergency and intensive care to acute medicine and skilled nursing and rehabilitation. Key elements of HCP's hospitalist program include its team nature, effective communication forums, adherence to evidence-based standards, emphasis on clinician training and development, and its integration with other disciplines including primary care, specialists, care management, and ancillary staff. HCP's clinical standards have been published in a hospitalist training manual, now used by hospitalists across the nation.

Because patients in skilled nursing facilities have the highest hospital readmission rates, HCP consolidated these patients in one or two facilities near a referring hospital and generally have one hospitalist and one nurse care manager overseeing the care of patients on-site for eight hours each day. In addition, the medical group developed a discharge management process used by HCP hospitalists at some 15 hospitals and 15 skilled nursing facilities. The process emphasizes keeping follow-up medical appointments, filling prescriptions for required discharge medications, communication with each patient's primary care physician, follow-up calls to patients after discharge, and monitoring hospital readmission rates.

The hospitalists' discharge management process yielded the following results with skilled nursing facility patients:

- The 30-day readmission rate dropped from 19 percent to 10 percent.
- Appointments with primary care physicians were scheduled for 99 percent of all discharged patients, compared with a baseline of 33 percent. (And 91 percent saw their primary care physicians within seven days of discharge.)
- 99 percent of discharged patients received a follow-up call within 48 hours after discharge, compared with none before the program began.
- 86 percent of discharged patients had a summary sent to their primary care provider within two days (and 95 percent had a summary sent within 30 days), compared with none before the program began.

Leading the Development of Care Standards With approximately 4.8 million stroke survivors in the United States, stroke is one of the leading causes of long-term disability. Nonetheless, there is currently no national standard for stroke prevention and treatment.

SUCCESS FACTORS
Evidence-based care
Collaboration across disciplines

To foster development of a national standard, and to improve the quality of life of stroke survivors, Lahey Clinic recently took part in the Centers for Disease Control and Prevention's Paul Coverdell National Acute Stroke Registry. Staff collected data on how patients are cared for in the minutes, hours, and weeks following a stroke.

Lahey clinical researchers found that serious complications occurred in 32 percent of patients admitted during the stroke trial. Subsequently, actions were taken to reduce post-stroke complications through the improvement of emergency room diagnoses, inpatient management, and secondary stroke prevention efforts. This multidisciplinary effort included neurology, cardiovascular medicine, emergency medicine, diagnostic radiology, and general internal medicine.

A vital component of the improvement process was development of standards for administration of medications such as tissue plasminogen activator (tPA). While tPA is extremely effective in dissolving blood clots, it must be administered within three hours of the onset of a stroke, and the majority of patients who are candidates for tPA arrive at the emergency room too late to receive it. Of those who were qualified to receive tPA at Lahey Clinic, registry data showed that 30 percent were receiving the medication. While this compared favorably to the national average of between 3 percent and 10 percent, Lahey physicians wanted to improve on this performance. In addition, antithrombotic medications, which help prevent clotting that could cause a repeat stroke, were not consistently administered within the recommended 48 hours.

Following creation of hospital-wide guidelines, Lahey is now at nearly 100 percent compliance in administering antithrombotic medication within the first 48 hours of a patient's admission. The number of eligible patients receiving tPA is also on the rise. In addition, standards have been set for preventive education on topics such as smoking cessation and recognizing the symptoms of stroke. By participating in the registry and developing new care standards, Lahey Clinic has strengthened the quality of care for its own stroke patients and contributed to a major national effort to improve stroke care.

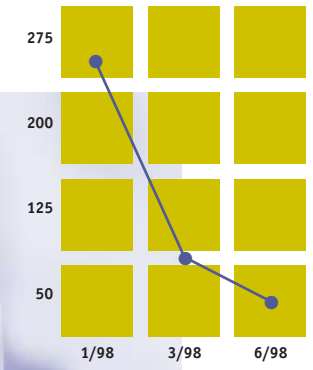
Increasing Patient Safety When the CEO teaches continuous improvement training as part of every new physician's and employee's orientation, this signals major commitment to a culture of performance improvement. This commitment, combined with participation in a rigorous Institute for Healthcare Improvement (IHI) collaborative patient safety initiative, resulted in increased error reporting and dramatic reductions of potential and documented adverse medication errors at Luther Midelfort in northwestern Wisconsin. Luther Midelfort is part of Mayo Health System and affiliated with Mayo Clinic.

SUCCESS FACTORS
Leaders act as champions
Performance improvement culture

Luther Midelfort joined the IHI collaborative in 1997. The project included baseline measurement, starting with a "trial" on a small scale, collecting measurements from the trial, acting on the trial data to improve the process, and spreading the innovation. Through the IHI collaborative, Luther Midelfort gained access to nationally known experts and information on proven best practices, as well as the support and expertise of other collaborative participants across the country. Following interviews and a baseline chart review, the Luther Midelfort team found that more than half of all medication errors occurred at the "interfaces" of care — admission, transfer out of specialty units, and discharge. The team standardized processes, developed tools, and implemented protocols for specific medications or situations in which medication errors had occurred most often.

Luther Midelfort also implemented a "blameless" error reporting policy to gain information about systems problems such as lack of coordination or incomplete information. This resulted in a 12-fold increase in error reporting. Potential adverse medication errors fell by 83 percent during the pilot period, and errors on reviewed charts per 100 admissions fell from over 250 to less than 50 in six months. Luther Midelfort was selected as one of 12 organizations in the Robert Wood Johnson Foundation's patient safety initiative, "Pursuing Perfection: Bold Steps for Improving Health Care" and is a nationally recognized leader in patient safety reform.

Updated from an article that originally appeared in AMGA, "Acclaim Award Compendium 1999-2001," 2002



Discrepancies on reviewed charts per 100 admissions

Focusing on Prevention, Detection, and Treatment Osteoporosis is a disease of the skeleton in which the amount of calcium present in the bones slowly decreases to the point where the bones become brittle and prone to fracture. It is a major public health threat for 44 million Americans. In the U.S. today, 10 million individuals already have osteoporosis, and 34 million more have low bone mass, placing them at increased risk for this disease. Osteoporosis causes more than 1.5 million bone fractures annually, including fractures of the hip, vertebrae, and wrist.

SUCCESS FACTORS
Evidence-based care
Performance improvement culture

Geisinger Health System's Geisinger Clinic, serving patients in 38 rural Pennsylvania counties, has received national recognition for its Osteoporosis Disease Management Program, which emphasizes prevention, detection, and appropriate treatment. A multidisciplinary group of physicians, nurses, pharmacists, and educators, representing specialties including general medicine, obstetrics/gynecology, rheumatology, endocrinology, orthopedics, and radiology, helped develop the program.

The program has three key components:

- Prevention, detection, and treatment guidelines for physicians (www.geisinger.org/osteo), along with continuing medical education sessions.
- Patient education, including forums, printed materials, monitoring, and follow-up calls. To further support patient education, about 80 community pharmacists and nearly 100 Pennsylvania Department of Health nurse educators received training and materials about osteoporosis, based on the Geisinger guidelines.
- Bone density testing. Geisinger rotates four heel ultrasound units to 25 primary care sites, provides Mobile DXA to 17 primary care sites, and additional DXA testing at five sites (over 10,000 DXAs per year). Patients receive bone density testing in convenient locations, while the physician group is able to use resources effectively.

Since the inception of the program in 1996, osteoporosis diagnosis has increased 400 percent, bone density testing has increased 1,000 percent, use of prescription osteoporosis treatment has increased 1,300 percent, and the hip fracture rate has dropped 36 percent. By reducing the number of fractures, this disease management program improved the quality of life for many patients and saved an estimated $7.8 million.

Achieving Earlier Diagnosis and Treatment

The chances of surviving five or more years after the diagnosis of breast cancer depends on how advanced the cancer is at the time of diagnosis. Over the past decade, Kaiser Permanente Colorado has made a number of changes to improve women's breast health, including more aggressive outreach to increase mammography screening rates, consolidation of mammography reading (so that a smaller number of expert radiologists interpret a higher volume of mammograms), and greater individual radiologist accountability for the accuracy of mammogram interpretation. As a result, Colorado Permanente Medical Group radiologists are detecting more cancers at an earlier, more treatable stage, and they have achieved one of the highest accuracy levels in the nation. The medical group's baseline performance in detecting breast cancer at stage 0 or 1 (the earliest stages) met or exceeded published standards through 1997. With the completion of the mammography specialization by 1998, however, a sustained level of nearly 90 percent early stage cancer has been achieved. This represents statistically significant improvement and exceeds published benchmarks by 10 percent. *The New York Times* quoted Robert Smith, MD, the American Cancer Society's screening chief: "Every mammography program in the country should be doing something like this."

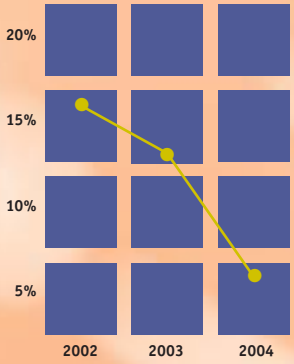
SUCCESS FACTORS
Emphasis on performance improvement
Physician accountability

Caring for High-Risk Patients

Diabetes is the sixth leading cause of death among Americans and accounts for 132 billion dollars in direct and indirect medical costs and lost productivity each year. The number of diabetics is increasing at an alarming rate, and Michigan — where the Henry Ford Medical Group is based — is among the states with the highest prevalence nationally.

SUCCESS FACTORS
Electronic medical record
Evidence-based care

Beginning in 1996, the medical group decided to focus on diabetes management, especially "dangerously out of control" (DOC) type II diabetics (those with blood glucose levels above 9.5, as measured by the HbA1c test). By the end of 2002, the Henry Ford Medical Group had achieved top quartile performance on all HEDIS clinical quality measures and performance in the 90th percentile on several key measures including kidney function and cholesterol screening. In 2001, the percentage of diabetic patients who were in the DOC category was 18 percent. By spring 2004, that percentage was reduced to 8 percent. This strong performance was supported by information technology (a comprehensive electronic medical record, a diabetes patient registry, and electronic prompts to physicians about recommended treatment and screening tests), implementation of evidence-based guidelines for diabetes type II treatment, and innovations in health care delivery (including an emphasis on patient education, case management, multidisciplinary teams, and making testing more convenient for patients).



Percent with HbA1c in poor control

Improving Quality of Life by Managing Chronic Disease

Some 4.8 million Americans live with congestive heart failure. In 1997, the Palo Alto Medical Clinic's (PAMC) heart failure readmission rate for a subset of its patients was 13 percent over a 20-month period. This readmission rate was well below national norms of 20 percent to 60 percent. But the medical group thought it could do better. By 2002, PAMC had achieved a 75 percent reduction in heart failure-related hospitalizations as well as increased quality of life for patients.

SUCCESS FACTORS
Personalized care plans
Multidisciplinary teams

PAMC's program targets patients according to the stage of their disease and medical history. Each patient receives an individualized care plan and a tailored team of caregivers. The three key components of the program include:

- In-home monitoring for patients most at risk.
- Patient education (including shared medical appointments, self-care, medications, diet, activity, and exercise).
- Provider education (to increase appropriate use of ACE inhibitors and beta-blockers).

The in-home monitoring of weight and symptoms resulted in earlier intervention and changes in treatment. Group appointments with a team including a social worker, a nurse, and a cardiologist enabled patients to learn more about their conditions. For the initial set of patients, the program reduced the number of hospitalizations due to heart failure, as well as reduced the total number of days of hospitalization. Patient surveys reported high satisfaction with the program and improved quality of life. Due to its success, the program was expanded and is now available to all PAMC patients.

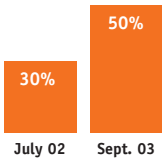
Updated from an article that originally appeared in AMGA, "Innovations in Caring for High-Risk Patients-Compendium," 2001

The heart failure program's comprehensive approach contributed to its success.

Responding Quickly to New Medical Discoveries Disseminations of innovations in medical care can take a surprisingly long time — some estimate an average of 17 years — to become mainstream practice following publication of randomized controlled trials. By contrast, the unique nature of integrated multispecialty practices enables them to implement new medical discoveries faster than many solo practitioners and other physician organizations.

SUCCESS FACTORS
Electronic medical record
Focus on clinician education

The physicians of Group Health Cooperative in Puget Sound and Eastern Washington were able to rapidly translate the benefits of a groundbreaking heart disease study into improved medical treatment for patients. Within only six months of publication of the study results, Group Health was beginning to disseminate change. In July 2002, the Heart Protection Study was published in the journal *Lancet*. The study found that lipid-lowering agents (statins) significantly reduce the risk of heart attacks and death in at-risk patients, even those with very low initial lipid levels. This finding was counter to accepted ideas that patients need to have high lipid levels to benefit from the medications. Second, the study found that statins are effective for at-risk diabetics including those with no prior heart disease and low lipid levels. Within a month after publication, a Group Health team of clinicians analyzed the new clinical recommendations and estimated that implementing new practices would prevent 750 heart attacks and revascularizations, and save $5 million in the next five years, after accounting for increased costs for pharmaceuticals.



Increased use of medication for at-risk diabetics

Group Health's team developed a coordinated plan to implement these more effective practices. The plan included embedding the new clinical practice recommendations into clinical information systems, developing educational materials for primary care clinicians and patients, holding continuing medical education sessions at all clinics, presenting information to all clinical pharmacists, and redesigning the roles and tasks within primary care teams. Just 15 months after publication of the medical discovery, in a delivery system including 20 clinics and 1,000 providers, Group Health increased the percentage of at-risk diabetics using the potentially life-saving medications from 30 percent to 50 percent.

Increasing Access to Care Timeliness of care was one of the six components of quality health care identified by the Institute of Medicine in its report *Crossing the Quality Chasm*. Because ability to be seen by their personal physician at a convenient time is a key driver of patient satisfaction, HealthPartners Medical Group (HPMG) in Minnesota decided to implement an access improvement program in 1999. The program was successful because of the commitment from top leadership and local champions, resources including quality improvement consultants and measurement experts available for each clinic, multi-disciplinary testing and implementation teams, and regular communication to share progress, best practices, and obstacles. Following a pilot of three clinics, HPMG leadership decided to convert the entire primary care system to this approach over a one-year period. Results included dramatically reduced waiting times for appointments, a 40 percent reduction in visits to urgent care centers (fewer urgent care visits were needed because primary care physicians improved their ability to see patients during clinic hours), and an increase in patient satisfaction. Careful analysis of care for patients with chronic conditions showed no deterioration in quality and improved continuity with primary care over this time period.

SUCCESS FACTORS
Focus on patient satisfaction
Care delivery innovations

Accountable Physician Practices: Leadership Characteristics

Accountable physician practices have specific attributes that distinguish them from solo and small group physician practices. Accountable group practices:

Integrate care. Care is coordinated across specialties and care settings, generally leading to more efficient and less duplicative diagnosis and treatment plans. This is especially important in the management of complex and chronic disease.

Effectively deploy up-to-date medical science. They have the capabilities and management systems to rapidly evaluate, disseminate, and consistently introduce new and superior medical practices.

Emphasize performance. Individual physician and group performance are regularly measured, and continuous improvement is driven by leaders and by the group's culture.

Manage resources efficiently. They systematically guide use of precious health care resources. Collective practice standards are based on up-to-date medical science.

Lead in the use of clinical information technology. These groups are early innovators in the development and use of electronic medical records.

Actively participate in medical research. These groups often lead the profession in the fields of population and health services research. A number have their own research journals.

Accountable group practices are the model for the future. Quite simply, they are the best building blocks for a 21st century American health system.

CAPP Vision: CAPP seeks to foster the development and recognition of accountable physician practices as a model for transforming the American health care system.

CAPP's goals are to:

- Promote greater awareness of health care quality and value through research, education, and direct demonstration.
- Provide a resource of physician expertise and clinical data to advance research on quality improvement and cost efficiency.
- Demonstrate that accountable physician practices can deliver effective, efficient health care that improves clinical outcomes, enhances quality of life, and satisfies patients.
- Foster the development of accountable physician practices among medical groups committed to quality improvement and cost efficiency.

CAPP Member Medical Groups:

Austin Regional Clinic, *Texas*
The Cleveland Clinic, *Ohio*
Duluth Clinic, *Minnesota*
Geisinger Clinic, *Pennsylvania*
Group Health Permanente,* *Washington, Idaho*
HealthCare Partners Medical Group, *Southern California*
HealthPartners Medical Group, *Minnesota*
Henry Ford Medical Group, *Michigan*
Lahey Clinic, *Massachusetts*
Mayo Clinic, *Arizona, Florida, Minnesota*
Mayo Health System, *Iowa, Minnesota, Wisconsin*
Nemours, *Delaware, Florida, Maryland, New Jersey, Pennsylvania*
Palo Alto Medical Foundation, *Northern California*
The Permanente Federation

- Colorado Permanente Medical Group
- Hawaii Permanente Medical Group
- Mid-Atlantic Permanente Medical Group, *Maryland, Virginia, Washington, D.C.*
- Northwest Permanente, *Oregon, Washington*
- Ohio Permanente Medical Group
- Southern California Permanente Medical Group
- The Permanente Medical Group, *Northern California*
- The Southeast Permanente Medical Group, *Georgia*

Sharp Rees-Stealy Medical Group, *Southern California*
Virginia Mason Clinic, *Washington*

(See **www.amga.org/CAPP** for the current list of CAPP member medical groups and for more information about CAPP)

* Associate Member, The Permanente Federation

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