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A Voice of Permanente

Each Permanente Medical Group grew locally through the personal character of the physicians and providers of that region. However, their medical practice philosophy of a health maintenance organization unified them nationally. Each day, in the hospitals and clinics, they worked out what we recognize as “Permanente practice.” On some of those days they mused about a greater connection with those across the country. It was a yearning to share their experience, to learn from others, to improve the care they delivered to the people they served. This “Voice of Permanente” can be heard in the comments of physicians and providers applying for the Review Board of a new national journal, and in the physician focus groups across the country. The editorial team sought their advice about a new venture in a time of unprecedented change. In this foreword I would like you to hear your Permanente voice as I describe the evolution, the purpose, the value, and the aspirations of your Permanente Journal.

The Permanente Journal has grown into a national publication from roots in newsletters produced by many clinicians. Three years ago in the Northwest we consolidated several newsletters, including Permanente Practice, into the NWP Journal of Clinical Practice. Our clinician readers found more than their favorite newsletter within the Journal. As they read across the pages into different disciplines, they found value in other people’s ideas, experiences and practices. We took this learning to the Regional Medical Directors in the form of a proposal for a national journal. If sharing “Permanente practice” was valuable regionally, then this conversational process interregionally could create superior value to enhance learning, accelerate progress, and reduce practice variation. “I am delighted the PMGs are putting together a journal to allow us to share our ideas.” “Permanente talent will create a readership beyond our walls.”

As the process of selecting Review Board editors revealed to me, in the impassioned words people wrote, the enormous value of Permanente physicians and providers. “Permanente is a group with tremendous resourcefulness, creativity, and care-full-ness in meeting the challenges ahead, but we need to share amongst ourselves much more effectively and efficiently.” “Permanente has unique practices, skills, and knowledge to share.” The daunting task of narrowing the field of reviewers became inspirational for me as I recognized how so many people felt so strongly about the need for a national journal. “A multidisciplinary journal is exciting and creative, and a unique experience.” “I am keenly interested in the success of this journal.” “This journal can showcase our best work and practices, strengthen the connection among groups, and influence the direction and nature of change in the practice and business of healthcare.” Along with these thoughts came a resolve to make it work. “I am extremely interested in the quality of medicine and dedicated to Kaiser Permanente.” “I have a long-term commitment to the highest individual, department, and group standards for Kaiser Permanente.” “Practicing clinical physicians have a responsibility to contribute.” “I want to make a real contribution.”

These and other like statements are directly aligned with achieving Kaiser Permanente Program goals of improved quality and service and reduced cost. Foremost was the recognition and importance of the patients we serve. “The journal must promote and support the goal of bringing increased value to our members and communities.” “I have an interest in influencing healthy choices for patients.” “I have a strong interest in patient satisfaction and well-being.” To achieve this end, a journal, its contributors, and its content has to meet certain high standards. “Encourage critical thinking in day-to-day clinical practice, and encourage the description of clinical experience in a managed care setting.” “KP has an obligation to promote research into clinical practices and set the standards and communicate through an organ such as the Journal.” “The Journal can promote our organization’s place in research excellence.” Several people spoke of its direct value for clinicians. “To encourage and promote scholarship in Kaiser Permanente.” “Remain on top of advances ‘on the horizon’.” “Keeping current is vital to improve quality and service to improve patient outcomes.”

To quote Senge’s Fifth Discipline Fieldbook, “Buckminster Fuller used to say if you want to teach people a new way of thinking, give them a tool, the use of which will lead to new ways of thinking.” The Permanente Journal is that tool. In the focus groups, physicians spoke about what this journal could and should be like. “We don’t want another New England Journal of Medicine, and we don’t want a ‘throwaway’ journal. We want something ‘midway’.”

As they struggled to give that concept definition, they continually used the words “practical,” “usable,” “readable,” and “concise.” They wanted something different yet were troubled with the idea of a journal “in the middle”—that it might be insubstantial. To me, a middle ground of significant substance and consequence is a journal that is “practice-based,” “evidence-based,” “experience-focused,” and “innovation-driven.” That is Permanente practice. “A description of clinical experience in a managed care setting.”

As much as clinicians need and seek information they can use today in their practice, they desperately want a forum and a vehicle to connect them with each other. And through a journal, people can converse. Associated with their yearning for a national connectedness and community is a realization that “Permanente practice” is a larger concept that meaningfully describes the future of managed health care. “Kaiser Permanente is developing systems of health care for the future.” From a seemingly peripheral group in traditional, mainstream medicine, Permanente has become a centerpiece, an experienced core, and now a large national group with a growing voice of great inherent strength and presence.

One physician prompted another perspective. “I want to serve because of my interest in the well-being of Kaiser Permanente.” This suggests an organization as a living entity, a viable organism. It is this biological “systems thinking” view—a holistic perspective—that is necessary to explore and grow the interrelatedness and interdependence of the parts of Kaiser Permanente. Our relationships, as

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partners with our patients, as partners with Health Plan, and as interregional Permanente physicians and providers, will create for us “a whole” that is one of our sustainable competitive advantages.

The organizational image we create matters for ourselves, for our members, and for our competitors in the marketplace. The Permanente Journal has the power to unify and bring to a larger level what people feel in their local regions. Communicating with a national voice, now essential, is possible. Members of the Advisory Board, Review Board, and Editorial Team have a responsibility to carry forward the energy, enthusiasm, commitment, dedication, long-standing effort and work, aspirations, and dreams of all physicians, providers, and Health Plan experts so invested in Kaiser Permanente.

Clinical Contributions

Clinical articles on the practice of medicine within The Permanente Medical Groups and their affiliates. Article topics may include reviews of successful practices, programs and policies, and analyses of new techniques.

Phillip M. Brenes, MD, Editor

As Executive Editor for the former Northwest Permanente Journal of Clinical Practice, the model for this publication, it has been my pleasure to participate in the design and formulation of this Journal and to act as the Associate Editor for this, the Clinical Contributions Section for the inaugural issue. Starting with the next issue, however, Dr. Arthur Klatsky from The Permanente Medical Group (Northern California) will take over as the Associate Editor for this section.

The Clinical Contributions Section of this Journal will feature articles that apply directly to the actual clinical practice of medicine in Kaiser Permanente. Articles in this section may include reviews, applications of new technologies to clinical practice, clinical observations and anecdotes, case presentations, experiences with successful practices, and other discussions relating to seeing and caring for patients. Because our collective clinical experience, interests, and expertise are immense, we want to provide a variety of clinical articles that will give you the opportunity to examine, evaluate, compare, explore, review, and/or ponder.

Given the enthusiastic response from so many of our clinicians wanting to contribute and participate in this enterprise, there should be great opportunity for all of us to share and learn from each other.

Original Research

This section features Kaiser Permanente’s research contributions through original, empirically based research in areas of great clinical importance. This includes outcomes research, studies that use Kaiser Permanente databases, and rigorous evaluations of best practices and innovations in clinical care.

Mary Durham, PhD, Editor

There has been a great deal of discussion about whether to have an original research section for The Permanente Journal. Some people have told us that good research will always go to one of the major research journals. I have been a voice for having a Research Section because I believe The Permanente Journal is a place where clinicians and researchers can publish important articles which inform us about clinical practice within Kaiser Permanente. It is certainly true that such articles will also be published elsewhere. However, I hope the Research Section inspires clinicians to analyze their practices in a rigorous fashion and to share their findings with their colleagues. I hope you’ll send us articles for consideration and that you’ll let us know about the important research you are doing—regardless of where it is eventually published.

Health Systems Management

This section features articles from a “systems” perspective, recognizing that medicine is practiced in the larger context of health care, involving ambulatory care delivery, hospital strategy, program expansion, and network development; and supported by information technology and the Internet. Growth in this system occurs through the leadership, education, and development of clinicians.

Lee Jacobs, MD, Editor

In the spirit of this inaugural issue of The Permanente Journal, I am very pleased to introduce this section of the Journal titled, Health Systems Management.
It was clear to me in reviewing the early work of the founders of this publication that they had a very good understanding of the value of the Permanente community. They understood that Kaiser Permanente’s real competitive advantage, the Program’s major asset, if you will, is the quality of the Permanente clinical care supported by a unique physician-led practice environment. The Health Systems Management Section will focus on the latter, our practice environment in which physician leadership plays the crucial role.

Specific areas of focus of this section will include leadership development, educational programs, ambulatory care delivery, Program expansion, network development, and information technology. While our challenges in these areas may be similar, our approaches and experiences may be quite different. The transferring of this knowledge is our objective. In essence, this section will provide an opportunity for the Permanente community to have a literary dialogue, so important if we are to learn and grow as Medical Groups.

At times, while reading this section, you will be somewhat consoled in learning that we are all encountering the same barriers as we refine our practices. You will also be excited about the learnings that you can derive as other Permanente groups share their experiences. Most of all, I believe that you will read with pride the steps that Permanente groups are taking to meet the everyday challenges that they encounter. Quality Permanente people sharing amazing innovations, that is what the Health Systems Management section will be all about.

**External Affairs**

This section features nonclinical articles on external issues related to the practice and perception of Permanente medicine. These may include articles by customers and consumer groups, as well as internally generated articles on health policy, the media, the marketplace, and our social mission.

Scott Rasgon, MD, Editor

It is with great pleasure that I introduce the External Affairs Section of *The Permanente Journal*. The articles in this section range from an article by David Pratt of General Electric Power Systems, “The Health Care Dynamic from a Physician-Purchaser Perspective,” to an article by Jim Gersbach of Kaiser Permanente Northwest Division, “Media Training for Physicians.”

I invite everyone inside and outside the Medical Groups with a perspective on how our health care program is viewed from the outside or how we from the inside mirror this perspective to contribute to the External Affairs Section. Our health care program viewed from the outside and how we shape this view are what this section is about.

**Abstracts**

This section features abstracts from articles published in other journals, preferentially featuring the works of Permanente physicians, and abstracts of books written by Permanente physicians. Some abstracts may be coupled with a critical commentary.

Mary Durham, PhD, Editor

Kaiser Permanente is fortunate to have hundreds of gifted researchers who routinely contribute to the medical literature. We plan to reprint abstracts which represent a broad range of topics, from a variety of geographic locations, by a diverse group of authors. It is clear from just our first edition that we will have to make some tough choices in order to cut across a wide range of interests and expertise.

We are now in the process of creating a method to identify published research through electronic and other means. Please send us articles that have been published so that the abstract can be considered for republication. Abstracts of books written by Permanente physicians which are related to health care will also be printed. Authors are urged to alert us to publication of their work.

**A Moment in Time**

A look back at milestones in the history of the Permanente Medical Groups.

Ek Ursin, MD, Emeritus Editor

The mandate of our column *A Moment in Time*, is to look back at milestones of the Permanente Medical Groups. Later in this issue the inaugural article by Dr. Greenlick gives us an overview of how we, the erstwhile pariah of health providers, became the en-vied and most copied model of American health care. The paper ends with a propitious outlook on the future, if we remain true to our social mission and accept the present-day challenges with an “if not us, then who?” attitude.

What we will print in the future will to a significant extent depend on you, your critique, and occasionally your praise. If you’d like to contribute, send us an outline (preferably on disk) of a story that will tie our past to Kaiser Permanente’s present and future.

Our e-mail address to communicate with us is permjournal@kpnwoa.mts.kpnw.org.
Greetings to all my colleagues in the Permanente Medical Groups across the United States. I joined Kaiser Permanente in 1969 as an Internist/Gastroenterologist, and I am delighted to see Kaiser Permanente’s spectacular success over the past three decades. There are a number of reasons for this success. Both Kaiser Foundation Health Plan and the Permanente Medical Groups—together as Kaiser Permanente—brought unique ideas of prepayment and group practice as solutions to the delivery of health care. To succeed now, we must build upon these initial ideas and find new and unique solutions to the same challenge that confronted us 50 years ago: delivering quality medical care that is affordable.

The Permanente Journal aims to do just that—bring our thoughts, practices, and accomplishments under one roof for everyone’s view. As a result, these new ideas can spread across our Permanente Medical Groups to bring better health to our members.

Today, it is recognized that “Permanente Practice” can be a significant marker or brand image for Kaiser Permanente. That is what makes the Program unique.

Allow me to share a few other observations—some encouraging and some of concern.

The Permanente Federation is a new legal entity designed to bring the Permanente Medical Groups together and offer us an opportunity to share our viewpoints and resources and most importantly to pair with Kaiser Foundation Health Plan in a national partnership to bring solutions to American medicine. I am sure your Executive Medical Director is bringing this development to your attention.

The Federation’s business unit, PermCo, was officially formed in February, 1997, and is owned by the Federation and all of us. It provides the structure to carry out new business practices and, at the same time, fulfill the business requirements of this national partnership with Kaiser Foundation Health Plan. This structure allows us to take advantage of new innovations, new ventures, and individual Medical Group ideas. It will bring them depth, clarity, financial support, and the human resources necessary to bring these ideas to fruition. In fact, the Executive Committee of The Permanente Federation hopes any new ventures directly benefit both participating Permanente Medical Groups and their individual physicians.

Our organization is in the process of forging a new national agreement between Kaiser Foundation Health Plan and The Permanente Federation that offers an opportunity to create a truly balanced national partnership between the two entities. As Kaiser Foundation Health Plan consolidates into a national organization, so, too, must we find ways to respond and act like one Permanente Medical Group. Why? Because Health Plan/Medical Group parity is the cornerstone of Kaiser Permanente and has been since our inception. It allows us to balance the business and insurance interests of the Health Plan with the medical values and practice of the Permanente Medical Groups. Any diminution of this relationship weakens Kaiser Permanente and will lead to our demise. Eugene Trefethen, who died in 1996 and was the trusted advisor to Henry Kaiser, crafted the Tahoe Accord with this balance in mind.

The development of a truly national Kaiser Permanente, with a growing Kaiser Foundation Health Plan and a growing Permanente medical practice across the United States, can be the most powerful contribution to improving American health care in our organization’s storied history.

We should all be aware of the dangers in front of us—managed care bashing, distorted physician incentives and profiteering, and medical practice becoming secondary to economic concerns. We know that these “malignancies” are antithetical to the very essence of the self-governed Permanente Medical Groups, which always strive to place patient interests first, second, and third. We must assure that this value remains central and prove incorrect the creeping notion that group practice does not offer an appropriate solution to our nation’s health care problems.

As I stated to physicians in Southern California, the very boundaries of our industry and in Kaiser Permanente are shifting, not imperceptibly slowly like changes in the ozone, but daily, and such changes are usually announced in a major newspaper or press release. We all must learn that the sun does not, and will not, follow all of us down the street. We must understand that whatever is meant by the “marketplace” does not include a special place reserved for the physicians of the Permanente Medical Groups.

Not withstanding this somber warning, I can assure you on behalf of the Executive Committee of the Permanente Federation that the Permanente Medical Groups will stand unwavering in our commitment to excellence in personal medical care to every patient, and to strengthening all of the Permanente Medical Groups, which together with Kaiser Foundation Health Plan comprise the unique Program called Kaiser Permanente.

I welcome the first edition of The Permanente Journal and wish great success to its Editor, Tom Janisse, MD, and to all those putting their efforts into this fine endeavor. ♦
Lost Signals

I am honored to provide this essay for the inaugural issue of The Permanente Journal. The new journal will help us inform one another and others who read it about the special ways we care for our members. Setting clinical standards in American medicine through innovation and population-based research has been a significant contribution of Kaiser Permanente throughout our history. This journal and those who contribute to it continue a legacy of which we can all be proud. Congratulations to the Permanente Medical Groups.

Most of us have had the experience of driving under high-voltage power lines and losing a radio signal to deafening static. Or having a favorite station drowned out by an unwelcome one. Or watching an indistinct image fade in and out on a blurry, snow-filled TV screen. Sometimes the interference is so powerful, it can overwhelm any signal no matter how strong. Sometimes an unwanted signal is simply clearer, more powerful, and closer to the listener. And sometimes the original signal is too weak, too indistinct to be transmitted very far, so that other signals, only slightly stronger, can replace it.

Our situation in Kaiser Permanente is like this. We face extraordinary challenges in telling our story effectively to the public and to our membership at a difficult, confusing time in the history of health care in the United States. We’d like to tell about the high quality of care we provide every day, about our standard-setting work in developing evidence-based guidelines for certain clinical conditions, about our commitment to use our “profits” to improve the health of our communities rather than to enrich investors. But our story gets lost in static and interference.

Last year our OB/GYN leaders in Northern California reviewed the evidence from the world scientific literature, coupled it with their own experience and data, and concluded that there was a better way to provide prenatal care. The innovation: to reduce visit frequency and strengthen the content of each visit. It was good for mothers and babies, and good for us. The reaction to our announcement was instantaneous and negative. Consumers, consumer activist groups, and the press accused us of cutting back on needed care to save money and “feed our bottom line.”

Our HEDIS results, our unique success with NCQA accreditation, and our commendations by JCAHO for our hospitals are reasons to be proud. From well-designed clinical outcome studies to ratings in popular magazines, we are ranked at the top or among the top-performing health care systems in the country. Yet we are criticized in the press for compromising quality and sacrificing appropriate care for profit. Consumers are unimpressed by objective data and continue to make their decisions about which health care organization to join based on subjective, and to us, superficial criteria.

We have excellent nurse advice systems, urgent care availability, and emergency care capabilities. We have a unique balance of primary and specialty care specialists and services. We have no financial motive to restrict or discourage care. In fact, most of us in Kaiser Permanente would agree that the better the care, the less expensive it is for us and for our patients. But we are criticized by consumer advocates, our motives are questioned by authors like George Anders,1 and we are pursued by plaintiffs’ lawyers for allegedly withholding needed care because of our drive to maximize profits or compete on cost.

But the problems can’t all be laid at the feet of the press, or the consumer advocates, or disgruntled physicians and health care workers. When we talk to members who are positive and satisfied with Kaiser Permanente; when we talk to consumers who have left us voluntarily for other plans; when we talk to people who wouldn’t consider joining us; when we survey our members about our organization, the story is remarkably consistent. Our services aren’t good enough. We aren’t yet meeting the expectations our members have for convenience, simplicity, reliability, and caring. This isn’t true for everybody. It isn’t true for every part of our organization. But often enough to be a problem, this is the story people tell about us.

The primary reason members give for leaving us voluntarily is dissatisfaction with our service; in particular, the quality of caring and attention given them by the system, the doctors, and the staff. The principal reason people won’t join us is because of the poor service they associate with us and their perception that bad service means bad care. Even a disheartening number of people who stay with us talk about “having to learn to work our system.” They often say things like, “I’d leave tomorrow if it weren’t for the care my kids get. My kids can get in, but I have to fight to get an appointment, and when I do, they make me feel like they’re doing me a favor.” The main reason people question the quality of our doctors is that our services don’t work very well for them. How can people trust our care when they don’t believe we care enough to serve them well?

This, I believe, explains a good part of the stubborn gap in satisfaction between our members and the members of other plans. Close to 63% of our members versus 80% of our competitor plan’s members rate themselves as very or extremely satisfied with their care experience.2 This difference has persisted for years in spite of our efforts to introduce open access and to redesign services. While our performance has improved, and improved considerably, our competitors haven’t stood still. As a consequence, we haven’t made up much ground yet.

1 George Anders, a health writer for The Wall Street Journal, recently authored a book entitled, “Health Against Wealth.” The first chapter was devoted to the celebrated Adams case in our Georgia Region.
2 The care experience refers to five major contributors to overall satisfaction and the decision to re-enroll with us: telephone access, access to appointments, having a regular physician, ability to see a regular physician, and attitude and attention of the physician.
We can’t lose sight of the larger context within which we are trying to establish a distinctive voice for Kaiser Permanente and raise the satisfaction of our members. Employees trust in their employers has been declining for over a decade, even accelerating in the past five years with the increasing pace of layoffs and downsizing. Employers have pushed managed care, arguing that unfettered fee for service medicine is too expensive. Imagine if you’re an employee. What are you going to think when your employer arranges for you to choose among competing managed care options? “This is a take-away, one more example of an employer who cares only about costs. It can’t be as good as what I used to have because I can’t go where I want, and besides, I can’t get care as easily as I used to when I need it.”

Add to this the fact that American consumers have been socialized for at least half a century to believe that more care is better care, and the higher-tech, the better. As the futurist Ian Morris Work points out (he was born in Scotland, raised in Canada, and now resides in the U.S.), the Scots consider death to be imminent; the Canadians view death as inevitable; the Americans believe death is optional.

Small wonder, then, that consumers view what we consider as “appropriate care” to be “less care,” and less care, of course, means lower-quality care. So when our members, bearing these biases, encounter our care and our services, there is real potential for losing the quality-of-care signal we want them to hear in the noise and interference of conflicting messages.

What’s going on here? I think there are three factors at play. All of us know about the outside interference. Competition for the ear of the health care consumer is fierce. An endless stream of stories about managed care, HMOs, and Kaiser Permanente are sponsored by worried consumers, consumer advocates, disgruntled physicians and health care workers, concerned legislators, and a receptive press, each bringing a distinctive point of view to the field.

But we bear a large part of the responsibility, too. Our Kaiser Permanente quality signal is not as clear and unambiguous as it needs to be. The excellence of our care in one part of our organization is compromised by poor care somewhere else, making it hard to create a sharp, distinct, consistent image for the public. Without that strength at the core of our organization, without that consistently high standard of performance, our signal isn’t strong enough to overcome the competing signals.

We confuse our message further with inconsistent, impersonal, and member-unfriendly services. Because service and caring is the language many consumers and members use to assess quality, our quality story gets written in a language in which we are only moderately fluent.

How do we break this cycle? How do we replace uncertainty and skepticism with trust? How do we strengthen our signal? We’re doing several important things this year.

To address the problem of distinguishing Kaiser Permanente from others who call themselves managed care or HMOs, we will soon launch a major national effort focused on a clear message to our membership and to the nation. At the heart of this campaign is our story of quality and care, told better and more effectively than ever before. To do this well will require that we make critical decisions about which consumers we choose to serve, what their needs and expectations are, and how we are going to improve our services to ensure that we address those expectations in a way that binds members to our tale story has to be consistent with the reality of our members’ experiences. In particular, it has to be aimed at those of highest risk of leaving Kaiser Permanente, the 37% of our members who remain neutral or dissatisfied with their care experience with us despite our best efforts.

We are also working with consumer advocacy groups to develop service and consumer protection standards for managed care organizations. These will create a formal understanding of what consumers can expect from us in quality assurance systems, service availability and ease of use, grievance and conflict resolution proceedings. We have already joined with the American College of Emergency Physicians to develop legislation that would broaden the rights of consumers to decide when they need emergency care—the so-called “prudent layperson” rule.

To address our service gaps, we have initiated several efforts. First, we’ve asked all Health Plan/Hospitals leaders and invited the Medical Group leaders to partner with us to reduce voluntary turnover of our existing members in the next three years and dramatically improve the care experience our members have with us. We’ve established targets—more as aspirations than anything else—and built them into the incentives for Health Plan/Hospitals executives. We’d like to reduce voluntary turnover across the Program from three percent to two percent by the end of the year 2000. And we’d like to improve satisfaction with the care experience from 63% to 80% very or extremely satisfied in the same time frame to match the satisfaction levels of our competitors. We will make a number of investments, support innovations, and look for best practices to share across the Program in pursuit of this goal.

We have also moved primary accountability for attracting and retaining members to the local levels of...
Our task is clear. We must reduce static and eliminate interference before our members and the public can see how good we are at taking care of people."

No problem can be solved from the same consciousness that created it.

Albert Einstein
Objective: To learn whether there was an increase in maternal or neonatal morbidity associated with a decrease in the cesarean delivery rate in a group-model health maintenance organization.

Study Design: We studied hospital discharge data from St. Joseph Hospital, Denver, Colorado, from July 1, 1986 through December 31, 1989. We matched 8,387 mother and infant pairs and identified maternal and neonatal morbidity by ICD-9 codes for each of four modes of delivery: cesarean, spontaneous vaginal, forceps, and vacuum extraction. For the analysis, we compared 1986 (the year of the highest cesarean delivery rate) with 1989 (the year of the lowest rate).

Results: A statistically significant decrease in cesarean births had occurred from 1986 through 1989, from 15.9% to 11.4% (OR, 1.47, 95% CI 1.21-1.80). Although maternal morbidity was not significantly different in high and low years, overall neonatal morbidity was significantly lower in 1989 for all modes of delivery. We observed a significantly elevated rate of “birth trauma” in 1989 (P < .0001). This increase was due to injuries to the scalp (caput succedaneum and cephalohematoma), conditions associated with vaginal births which usually resolve without clinical sequelae. Mean maternal postpartum and neonatal lengths of hospital stay were significantly higher for all deliveries in 1986 (P < .0001 and P = 0.0078, respectively).

Conclusion: In this population, the lowered cesarean delivery rate was not accompanied by an increase in clinically significant maternal and neonatal morbidity or in length of hospital stay.

Between 1965 and 1991, cesarean deliveries in the United States increased from 4.5% to 23.5% of all births.1 There is general agreement among health care professionals and consumers that current cesarean rates have been too high. The American College of Obstetricians and Gynecologists (ACOG) has offered no guideline regarding the “appropriateness” of any cesarean delivery rate. The only opinion on “appropriateness” of any cesarean delivery rate in a group-model health maintenance organization.
Obstetric practice guidelines did not undergo formal change during this time, nor is there evidence that the demographic composition of the population changed. Generally, the population base included employed women and wives and daughters of employed men.

Discharge data were provided by the hospital for July 1, 1986 through December 31, 1989. Maternal and neonatal records of more than 8,000 births were linked manually. Because mothers’ and neonates’ discharge records were maintained separately and because some mothers’ names differed from those of their offspring, it was often necessary to search neonatal charts in order to find mothers’ names. The proportion of mothers who could not be matched to neonates ranged from 8.4 to 9.7% per year. Our outcome data refer only to matched pairs of mothers and neonates. We classified maternal and neonatal morbidity, maternal postpartum length of stay, and neonatal length of hospital stay by mode of delivery. Two single breech vaginal births in 1988 stay, and neonatal length of hospital stay by mode of delivery. Two single breech vaginal births in 1988 and 1989 were omitted from analysis; no morbidity of delivery. Two single breech vaginal births in 1988 and 1989 were omitted from analysis; no morbidity was associated with these births.

Maternal morbid conditions (Figure 1) were identified by ICD-9 codes. We selected codes that were most likely to be associated with events of delivery rather than with underlying health problems. We differentiated vaginal births by whether they were spontaneous, forceps, or vacuum deliveries. Neonatal morbidity was identified using selected ICD-9 diagnostic codes. In Figure 2, three general categories are shown: 1) birth trauma, 2) intrauterine hypoxia and birth asphyxia, and 3) other conditions of the fetus and newborn. Data were first analyzed by the chi-squared method. Odds ratios and 95% confidence intervals were calculated. Years with the highest (1986) and lowest (1989) rates of cesarean delivery were compared, with 1989 as the reference year. Continuous data (lengths of stay) were analyzed with t-tests, comparing 1986 with 1989 (SAS version 6.10, Statistical Analysis Systems, Cary, NC). We considered a P value of < 0.05 significant.

### Results

#### Mode of Delivery

In Table 1, births are reported by mode of delivery for each year of the study. The rate of cesarean delivery was lower among our study participants in 1989 (11.4%) than in 1986 (15.9%). This decline was significant (P < .001). Rates of spontaneous and vacuum deliveries did not differ in these two years. The rate of forceps delivery in 1989 was higher than in 1986 (P = .047). We also noted that the rate of cesarean...
delivery in our study group was lower than that of the entire Kaiser Permanente population for each year (e.g., 15.9% vs 16.2% in 1986). We attribute this finding to attrition from the population of mothers and neonates whom we could not match.

**Maternal Morbidity**

Maternal morbidity is displayed in Table 2. Some mothers had more than one condition. The percentages reflect the total number of morbid conditions divided by the number of deliveries by year and mode of delivery. The differences in morbidity were not significant for any mode of delivery. Overall, there was no increase in maternal morbidity during the year of the lowest cesarean rate.

**Neonatal Morbidity**

Neonatal morbidity is shown in Table 3. Neonatal morbidity decreased in each year of the study with the exception of a slight rise among neonates delivered by vacuum extraction in 1989, reflecting a greater proportion of injuries to the scalp. For each mode of delivery, there were significantly fewer problems in 1989 compared with 1986.

Several specific conditions were collectively identified as "birth trauma" (Figure 2). An analysis of these conditions occurring among all neonates during the study years revealed their infrequent occurrence. In 8,387 deliveries, there were only 9 instances of subdural and cerebral hemorrhage (0.1%); 243 (2.9%) injuries to the scalp, including cephalohematoma; 5 clavicular fractures (0.06%); 57 fractures of large bones or skull (0.7%); 4 cases of facial palsy (0.05%); and 6 cases of Erb’s palsy (0.07%). It was of interest, however, that there were proportionately more injuries to the scalp resulting from vacuum births than other modes of delivery in all study years. Overall birth trauma is shown in Table 4, with significantly fewer occurrences amongst neonates delivered spontaneously in 1986 compared with 1989. When the 243 cases of injury to the scalp (ICD-9, 767.1) were removed from this analysis, there was no statistically significant difference between the two years.

**Maternal Postpartum Length of Hospital Stay**

Mean maternal postpartum lengths of stay by mode of delivery and year are compared in Figure 3. Overall, there was a significant difference when the years of low (1989) and high (1986) cesarean delivery rates were compared for all modes of delivery. The mean maternal postpartum lengths of stay for all deliveries in 1986 and 1989 were 2.3 days ± 1.3 and 1.6 ± 1.1, respectively (P< .0001). Also, compared with 1986, lengths of stay were significantly shorter for mothers in 1989 for each mode of delivery.

**Neonatal Length of Stay**

As anticipated, the shortest lengths of stay were experienced by vaginally delivered neonates (mean for all years = 2.0 ± 3.8 days). During the years studied, only 3% of those with cesarean birth stayed for two days or less, while 91.6% of those delivered spon-
taneously, 85.6% of those delivered by vacuum extraction, and 84.2% of those delivered by forceps stayed for two days or less. Trends over the years can be seen in Figure 4. The mean neonatal lengths of stay for all deliveries were 2.7 ± 3.0 days in 1986 and 2.3 ± 5.1 days in 1989 (P = 0.0078). However, for each mode of delivery, analyzed separately, there was no difference in neonatal length of stay in 1986 and 1989.

Comment

In this retrospective study, we found that a significant decrease in the cesarean rate was not accompanied by an increase in important delivery-related maternal and neonatal problems as identified from hospital discharge data. In fact, we observed a significant decrease in overall neonatal morbidity in the year of the lowest cesarean rate compared with the highest year. We saw an increase in "birth trauma" in the spontaneously delivered group in 1989 compared with 1986 because of the number of injuries to the scalp (ICD-9, 767.1). The main conditions of this code, caput succedaneum and cephalohematoma, are entities which usually resolve without clinical sequelae. When these "injuries" were removed from the analysis of birth trauma, the difference was no longer significant.

During the two comparison years, overall maternal postpartum length of stay decreased. This finding is compatible with national trends in postpartum care over the period studied. Length of stay also decreased for each of the three modes of vaginal delivery in 1989 compared with 1986. The lower rate of cesarean delivery in 1989 also contributed to the decrease in maternal length of stay. We also found a decrease in neonatal length of stay for all modes of delivery combined (P = .0078).

Although these results support the view that cesarean rates can be lowered without harm, we recognize limitations of this study. First, although we saw a significant decrease in rates of cesarean birth over the study years, we are unable to substantiate the reasons for the decline. We speculate that the decrease was due to fewer cesarean deliveries for dystocia and to fewer repeated cesarean deliveries. However, hospital discharge records, the source of our study data, do not provide data regarding the demographic characteristics of mothers such as obstetric history or chronic medical conditions which would clearly influence the selection of a mode of delivery. Second, we cannot provide evidence that clinical practices (e.g., management of labor use of oxytocin) remained exactly the same during the study period.

As noted earlier, several studies have demonstrated that some strategies lower the cesarean delivery rate. Programs using trials of labor after cesarean birth, active management of labor; second opinions before performing cesarean delivery, labor support personnel, or using narcotic analgesia rather than epidural anesthesia have all lowered cesarean birth rates.5-13

Table 4. Birth Trauma by Mode of Delivery and Year

<table>
<thead>
<tr>
<th>Mode of Delivery</th>
<th>1986 N%</th>
<th>1987 N%</th>
<th>1988 N%</th>
<th>1989 N%</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesarean</td>
<td>8/180 (4.4%)</td>
<td>5/294 (1.7%)</td>
<td>9/324 (2.8%)</td>
<td>19/304 (6.2%)</td>
<td>0.668</td>
<td>0.300, 1.623</td>
</tr>
<tr>
<td>Spontaneous Vaginal</td>
<td>15/974 (1.7%)</td>
<td>30/1783 (2.0%)</td>
<td>30/1809 (2.2%)</td>
<td>10/2120 (4.9%)</td>
<td>0.342</td>
<td>0.203, 0.577**</td>
</tr>
<tr>
<td>Forceps</td>
<td>3/39 (7.7%)</td>
<td>5/40 (5.5%)</td>
<td>7/119 (5.9%)</td>
<td>11/131 (8.4%)</td>
<td>0.509</td>
<td>0.240, 3.449</td>
</tr>
<tr>
<td>Vacuum</td>
<td>6/40 (15.0%)</td>
<td>7/79 (8.9%)</td>
<td>11/100 (13.7%)</td>
<td>24/121 (19.0%)</td>
<td>0.713</td>
<td>0.269, 1.993</td>
</tr>
</tbody>
</table>

*Odds Ratios by mode of delivery compared to 1986 morbidity with that of 1989. The percentages reflect the number of maternal conditions divided by the number of each kind of delivery in a particular year times 100.

References:
2. American College of Obstetricians and Gynecologists. Vaginal...

"Why is there such an epidemic of ‘poor communication’ within organizations? What we are all suffering from is a fundamental misperception of information: what it is, how it works, and what we might expect from it. We’ve treated information as a ‘thing,’ as an inert entity to disseminate, as a quantity, as a commodity. The meaning and purpose of information has been ignored."

Margaret J. Wheatley, Leadership and the New Science
The Epidemiology of Alcohol and Cardiovascular Diseases

This article summarizes and evaluates current knowledge about the relation between drinking alcoholic beverages and several cardiovascular conditions. Both possible harmful and beneficial effects are discussed. Kaiser Permanente investigators have been active in this area for more than 20 years, and their studies are reviewed. There are disparities with respect to amount of alcohol used and with respect to various cardiovascular conditions. Conclusions about benefit or harm depend upon individual risk/benefit consideration.

Introduction
Disparity in the relation of alcohol consumption to various cardiovascular (CV) conditions has become evident. Heavier drinking is related to higher prevalence of cardiomyopathy (CM), hypertension (HTN), hemorrhagic stroke, and cardiac arrhythmias. Lighter drinking is related to lower prevalence of coronary artery disease (CAD), ischemic stroke, and sudden cardiac death. The composite of these relations in several population studies of overall CV mortality is a U-shaped curve (lighter drinkers at lower risk than abstainers or heavier drinkers), although several other studies show all drinkers, lighter and heavier, at lower CV mortality risk than abstainers. Increased non-CV mortality among heavier drinkers is found in all studies, with a J-curve (heavier drinkers at highest; lighter drinkers at low-est risk) for the all-cause alcohol-mortality relation.

Definitions of Moderate and Heavy Drinking
Any definition of moderate drinking is arbitrary. The operational definition here used is based upon the level of drinking in epidemiologic studies above which net harm is usually seen. Thus, less than three drinks per day is called “lighter” or “moderate” drinking, and three or more drinks per day, “heavy” drinking. Sex, age, and individual factors lower the upper limit for some persons and raise it for others. In data based upon surveys, systematic “underestimation” (lying) probably tends to lower the apparent threshold for harmful alcohol effects.

Fortunately, the amount of alcohol in a standard-sized drink of wine, liquor, or beer is approximately the same. Since people think in terms of “drinks,” not milliliters or grams of alcohol, it seems to this author best to describe alcohol consumption in terms of drinks per day or week. When talking with patients, health professionals should always remember the importance of defining the size of drinks.

Alcoholic Cardiomyopathy (ACM)
The concept of an independent, direct cardiotoxic effect of alcohol has become accepted. The circumstantial evidence is substantial, but the absence of specific diagnostic tests seriously impedes epidemiologic study. Alcohol-associated CM cannot be distinguished clinically or pathologically from dilated CM of unknown cause(s). Historical episodes suggest synergistic myocardial toxicity of alcohol with arsenic and cobalt; other cofactors in alcoholic heart disease remain speculative. A role for thiamine deficiency in low-output chronic heart failure has never been established, although an interaction with alcohol cardiotoxicity might exist in malnourished persons.

The most convincing circumstantial evidence for ACM is the extensive data, in animals and humans, of nonspecific cardiac abnormalities related to alcohol. These include structural abnormalities in autopsy and biopsy studies and demonstration of acute and chronic functional and metabolic derangements by several techniques. A possible nonoxidative metabolic pathway for alcohol has been reported by Laposata and Lange in the heart, muscle, pancreas, and brain, related to fatty acid metabolism. Accumulation of fatty acid ethyl esters was shown to be related to blood alcohol levels and to mitochondrial metabolism. A report by Urbano-Marquez et al showed in alcoholics a clear relation of lifetime alcohol consumption to structural and functional myocardial and skeletal muscle abnormalities. The amounts of alcohol were large—the equivalent of 120 grams alcohol per day for 20 years.

As of 1997, a majority of all cases of CM are considered to be of unknown cause. The proportion of CM cases attributed to alcohol varies markedly in reports, probably due mostly to differences in the alcohol consumption habits of the populations under study. Thus, recent reports include alcohol-attributable proportions ranging from 3.4% at Johns Hopkins Hospital to 41.9% at the Philadelphia VA Hospital.

The lack of specific diagnostic tests for ACM necessitates exclusion of other CV conditions for diagnosis. However, the probability of synergistic damage includes possibly enhanced alcohol cardiotoxicity in the presence of other myocardial damage. For this reason, persons with heart muscle impairment or major arrhythmias should be especially strongly advised to limit alcohol intake to less than three drinks per day.

Hypertension (HTN)
An association between heavier alcohol consumption and HTN reported by Liao in French servicemen in 1915 was largely ignored for the next 60 years.
Since the mid-1970s, largely because of epidemiologic studies in developed countries, alcohol ingestion has joined other correlates of hypertension, such as obesity and salt intake, as a major focus in research about possible HTN risk factors. An alcohol-HTN link has been shown in almost all of more than 50 cross-sectional and 10 prospective population studies in ambulatory persons in a number of countries. Studies differ about whether the alcohol-HTN link is linear or nonlinear in men (i.e., is a consumption threshold present?); in women, the curve which represents the relation is J-shaped, or present only at higher alcohol intake. Studies of hospitalized alcoholics or problem drinkers have been conflicting with respect to HTN. It is possible that chronic alcohol-related conditions such as malnutrition, cirrhosis, and cardiomyopathy lower blood pressure in some persons.

Two Kaiser Permanente studies are among the largest of the cross-sectional population surveys. The first showed a J-curve in women and a threshold relation in men, with higher blood pressures at three or more drinks per day in both sexes (Figure 1). The findings were independent of age, sex, and race and, by direct cross-classification (examination of the alcohol-HTN relationship in population subcategories), of smoking, coffee intake, reported past heavy drinking, education, adiposity, and habitual salt use. HTN (greater than 160/95 mmHg) prevalence was doubled in white men and women reporting consumption of six or more drinks per day. The second Kaiser Permanente study showed similar findings in an analysis adjusted simultaneously for age, adiposity, smoking, coffee, tea, and seven blood tests (Figure 2). Ex-drinkers did not have higher blood pressure than lifelong abstainers. Study of drinking variability and intake in the week before examination suggested rapid regression of alcohol-associated HTN with abstinence.

Several intervention studies suggest a short-term (develops in days to several weeks) pressor effect of three to eight alcoholic drinks per day, and decreases in blood pressure upon abstention or marked reduction in alcohol intake. No elevations of blood pressure due to withdrawal have been seen in these studies. A few studies present data showing independence of the alcohol-blood pressure association from intake of salt, physical activity, and psychosocial stress. Even without confirmation in long-term trials, the intervention studies support a cause-effect relation between alcohol intake and HTN. Estimates of possible population-attributable risk (proportion of HTN due to alcohol) range from 5% to 30%. Even if only 5% of HTN is attributable to alcohol, this may be the commonest cause of reversible HTN in developed societies.

The inconsistent acute effects of alcohol on blood pressure as reported in human and animal studies may not be directly relevant to the epidemiologic relation in humans. There is no known animal model for chronic studies. There is no proof of a sustained effect in humans via the renin-angiotensin mecha-
nism, cortisol, catecholamines, increased cardiac output, "hypermetabolic state," central nervous system actions, or autonomic nervous system effects. A recently reported experiment in normal humans used intraneural microelectrodes to demonstrate increased sympathetic activation in response to I.V. alcohol with a delayed (second hour) blood pressure rise. Inhibition by dexamethasone suggested a central mechanism via corticotropin-releasing hormone. There is some current interest in a possible direct effect upon peripheral vascular tone via a calcium transport mechanism. Explanations for the alcohol-HTN association remain speculative; this fact is the major deficiency in the case for causality. Studies of HTN sequelae (coronary disease, stroke, congestive heart failure, renal insufficiency, etc.) are greatly complicated by the independent relations of alcohol use to several common hypertension sequelae.8

It is likely that the alcohol-HTN link is causal. Reduction of intake in some heavier drinkers is probably therapeutic, and avoidance of heavier drinking will probably prove to have an important role in primary prevention of HTN.12

Coronary Artery Disease (CAD)

Data showing that major CAD events are more likely to develop in abstainers than in alcohol drinkers include international comparisons, time-trend analyses, case-control studies, and longitudinal studies.13,14 Most studies of CAD hospitalizations show heavier drinkers have a risk of CAD hospitalization similar to or lower than that of lighter drinkers (i.e., no U-shaped curve). Several population studies using CAD mortality as an endpoint also show a progressive inverse relation to amount of alcohol consumption, but others show a U-shaped curve. Those studies which separate lifelong abstainers from past drinkers suggest that both subsets of nondrinkers are at higher risk of CAD than drinkers, but some would still dispute this. Many population studies were not able to distinguish these subsets of nondrinkers. Where available, data about choice of type of alcoholic beverage suggest that beverage choice is a minor factor in CAD risk. Studies of sudden cardiac death, due mostly to CAD, also show an inverse relation to alcohol use.

There are plausible mechanisms by which alcohol drinking might protect against CAD.12,13,14 These include: 1) a favorable effect on HDL cholesterol concentration (an increased level), a similarly favorable effect upon apolipoproteins, and an antithrombotic action. Controversy about protection persists, however, on the grounds that correlates of abstinence and lighter drinking could explain the higher risk of abstainers. For example, a much publicized hypothesis advanced by Shaper et al15 suggested that movement of persons at high CAD risk into the abstainer referent group could explain the U-shaped curve shown in their work and in that of other investigators.

A prospective Kaiser Permanente study of alcohol habits in relation to CAD hospitalizations showed that ex-drinkers and infrequent (less than 1/month) drinkers were at a risk similar to that of lifelong abstainers. A lower CAD risk was present among all other drinkers with no U-shaped curve, independent of a number of potential confounders (Table 1). These relations were independent of base line CAD risk at examination (Table 2) and beverage choice. The data suggested a protective effect of alcohol against risk of hospitalization for CAD.

In a prospective Kaiser Permanente study of total CV mortality,17 ex-drinkers had higher age-adjusted CAD and overall CV mortality risk than lifelong abstainers, but the difference disappeared when adjusted for other traits. Among drinkers, there were U-shaped mortality curves relating amounts of alcohol and both CVD and CAD, with a nadir at one to two and at three to five drinks per day. Subsets free of baseline risk had similar alcohol-CAD and alcohol-CV mortality curves. The study demonstrated the expected disparities between alcohol and various CV conditions (Table 3). A number of features of the analysis argued against a spurious inverse alcohol-CAD relation, including:

1) independence from CAD risk at baseline examination;
2) absence of higher CAD risk among persons reducing alcohol intake for medical reasons;
3) evidence that the higher unadjusted CAD risk of ex-drinkers is due to confounding.

Table 1. Relative Risk of Coronary Artery Disease Hospitalizations* According to Alcohol Use

<table>
<thead>
<tr>
<th>Alcohol Use</th>
<th>RR*</th>
<th>95% CI</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nondrinkers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstainers</td>
<td>1.0 (ref)</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Ex-drinkers</td>
<td>1.0</td>
<td>(0.7, 1.4)</td>
<td>0.9</td>
</tr>
<tr>
<td>Drinkers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 per month</td>
<td>0.9</td>
<td>(0.7, 1.2)</td>
<td>0.6</td>
</tr>
<tr>
<td>&lt;1 per day, &gt;1 per month</td>
<td>0.7</td>
<td>(0.5, 0.8)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>1-2 per day</td>
<td>0.6</td>
<td>(0.5, 0.7)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>3-5 per day</td>
<td>0.5</td>
<td>(0.4, 0.8)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>6-8 per day</td>
<td>0.5</td>
<td>(0.3, 1.1)</td>
<td>0.1</td>
</tr>
<tr>
<td>9 per day</td>
<td>0.5</td>
<td>(0.2, 1.5)</td>
<td>0.2</td>
</tr>
</tbody>
</table>

* First for any CAD diagnosis (n=756)
# Computed from coefficients estimated by Cox proportional hazards model; covariates include sex, age, race, smoking, education, coffee
RR=relative risk; CI=confidence interval
(adapted from Klaasen AL, Armstrong MA, Friedman GD. Am J Cardiol 1986;58:710-4)
4) absence of a relation among ex-drinkers between CAD risk and maximal past intake;
5) absence of a relation between infrequent (less than 1/month) drinking and CAD risk;
6) similar reduction of CAD risk among drinkers of wine, liquor, and beer.

Another large prospective study among women free of CAD at examination\(^1\) showed a progressive inverse relation of alcohol use to major CAD events, independent of prior reduction in alcohol intake and of nutrient intake (the latter was analyzed in detail). The relative risk of CAD events in women reporting daily alcohol intake of 25 or more grams per day was 0.4, similar to the findings for women in the Kaiser Permanente study. Further analysis of these data in women\(^3\) demonstrated that net beneficial effects of moderate alcohol use in women was limited by adverse effects to persons clearly at above-average CAD risk (i.e., those above 50 years of age).

Large prospective studies in men also confirm the lower CAD risk of drinkers, independent of confounders or disease when alcohol habits were determined.\(^2,21\) The American Cancer Society Study\(^2\) was a 12-year prospective mortality study of 276,802 white men; there was a U-shaped curve for CAD mortality, with a RR of 0.8 (vs. abstainers) at one to two drinks per day. The Health Professional Followup Study of 51,529 men\(^2\) was well controlled for dietary habits; newly diagnosed CAD was inversely related to increasing alcohol intake. A study in both sexes, the Auckland Heart Study,\(^2\) was designed to study the hypothesis that persons at high CAD risk are likely to become nondrinkers; the analysis showed that moderate drinkers had lower CAD risk than both lifelong abstainers and ex-drinkers, thus supporting the hypothesis that alcohol protects against CAD.

Reduced risk of CAD is present at various ages, although the impact upon total mortality in a Kaiser Permanente study was clearest in older age brackets and the adverse effects of alcohol were greater among younger persons.\(^2\) Among persons >60 years of age, overt or latent CAD may play a role in risk of death from causes other than CAD.\(^2\)

The hypothesis that the apparent protective effect of alcohol against CAD is mediated by higher HDL cholesterol levels in drinkers has been examined quantitatively in three separate studies.\(^24-26\) All three analyses yielded similar findings suggesting that higher HDL levels in drinkers mediated about half of the lower CAD risk. One of these studies\(^2\) suggests that both HDL2 and HDL3 are involved. HDL3 may be more strongly related to lighter alcohol intake but is probably related as strongly as HDL2 to lower CAD risk. There are no similar data about protective mechanisms other than the HDL link, but some data support several possible antithrombotic mechanisms.\(^3,4,21\) Thus, multiple mechanisms may play a role.

International comparison studies\(^27,29\) suggest that wine confers more protection against CAD than beer or liquor. The "French paradox" concept has arisen from these data; it refers to the fact that France tends to be an outlier on graphs of mean dietary fat intake vs. CAD mortality, unless adjusted for wine alcohol intake.\(^29,30\) Reports of nonalcohol antioxidant phenolic compounds\(^30-32\) or antithrombotic substances\(^33-36\) in wine, especially red wine, have appeared. Inhibition of oxida-

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#### Table 2. Relative Risk of Coronary Artery Disease Hospitalization According to Alcohol Use Among Persons Free of Coronary Risk/Symptoms or Recent Major Illness\(^*\)

<table>
<thead>
<tr>
<th>Alcohol Use</th>
<th>RR#</th>
<th>95% CI</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nondrinkers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstainers</td>
<td>1.0 (ref)</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Ex-drinkers</td>
<td>0.9 (0.6, 1.6)</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Drinkers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 per month</td>
<td>0.6 (0.6, 1.3)</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>&gt;1 per month</td>
<td>0.6 (0.4, 0.9)</td>
<td>&lt;0.01</td>
<td></td>
</tr>
<tr>
<td>1-2 per day</td>
<td>0.5 (0.3, 0.7)</td>
<td>&lt;0.0001</td>
<td></td>
</tr>
<tr>
<td>3-5 per day</td>
<td>0.5 (0.3, 0.8)</td>
<td>&lt;0.01</td>
<td></td>
</tr>
<tr>
<td>6-8 per day</td>
<td>0.7 (0.2, 1.8)</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>9 per day</td>
<td>0.5 (0.1, 3.8)</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

*First for any CAD diagnosis (n=336) among persons with no CHD risk/symptoms (12 items) or other major illness in the past year.

\#Computed from coefficients estimated by Cox proportional hazards model; covariates include sex, age, race, smoking, education, coffee.

RR=relative risk; CI=Confidence interval.

(Adapted from Am J Cardiol 1996;58:710-714)

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“Even if only 5% of HTN is attributable to alcohol, this may be the commonest cause of reversible HTN in developed societies.”
tive modification of low-density-lipoprotein cholesterol is probably anti-atherogenic, although prospective clinical trials of antioxidant supplements are not yet conclusive. Thus, antioxidant substances in wine are an attractive hypothetical explanation for CAD protection. However, the prospective population studies provide no consensus that wine has additional benefits, and various studies show benefit for wine, beer, liquor, or all three major beverage types. In Kaiser Permanente studies, all three major beverage types show evidence of protection against CAD; wine drinkers fare best with respect to CAD mortality, but drinkers of red and non-red wine fare equally well. Because the beverages differ in user traits, with wine drinkers having the most favorable CAD risk profile, a noncausal explanation was favored for the lower CAD risk of wine drinkers. Drinking-pattern differences among the beverage types are another hypothetical factor: The wine/liquor/beer issue is unresolved at this time, but it seems likely that ethyl alcohol is the major factor with respect to lower CAD risk.

It remains theoretically possible that lifelong abstainers could differ from drinkers in psychological traits, dietary habits, physical exercise habits, or some other way which could be related to CAD risk, but there is no good evidence for such a trait. The various studies indicate that such a correlate would need to be present in persons of both sexes, various countries, and multiple racial groups. Although it remains possible that other factors play a role, a causal, protective effect of alcohol is a simpler and more plausible explanation.

### Cerebrovascular Disease

Several reports suggest that alcohol use, especially heavier drinking, is associated with higher risk of stroke. Some studies examined only drinking sprees; others did not differentiate between hemorrhagic and occlusive strokes. Several studies have suggested that alcohol was related only to hemorrhagic stroke. The Nurse’s Health Study showed drinkers to be at higher risk of subarachnoid hemorrhage but at lower risk of occlusive stroke.

A Kaiser Permanente study looked at the relations between reported alcohol use and the incidence of hospitalization for several types of cerebrovascular disease. Daily consumption of 3 or more drinks, but not lighter drinking, was related to higher hospitalization rates for hemorrhagic cerebrovascular disease, especially intracerebral hemorrhage. Higher blood pressure appeared to be a partial mediator of this relation. Alcohol use was associated with lower hospitalization rates for occlusive cerebrovascular disease; an inverse relation was present for both sexes, for whites and blacks, and for extracranial and intracranial occlusive lesions (Table 4). The data suggest that heavier drinking increases the risk of hemorrhagic cerebrovascular events but that alcohol use may lessen the risk of occlusive lesions.

The relation of alcohol drinking to the various types of cerebrovascular disease and agreement only that more study of this important area is needed.

### Cardiac Arrhythmias

Increased ventricular ectopic activity has been documented after ingestion of substantial amounts of alcohol, although epidemiologic studies have not shown a higher risk of sudden death in drinkers. Various atrial dysrhythmias have been reported to be associated with spree drinking. A Kaiser Permanente study compared atrial dysrhythmias in 1,322 persons reporting six or more drinks per day to 1,318 persons reporting one to five drinks per day, and the heavier drinkers was at least doubled for atrial dysrhythmias. In the Kaiser Permanente study, atrial premature complexes (Table 5).

<table>
<thead>
<tr>
<th>Rhythm</th>
<th>Persons with Arrhythmia</th>
<th>RR (6+&lt;1)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrial Fibrillation</td>
<td>15</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Arrial Flutter</td>
<td>8</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>SVT</td>
<td>5</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>APB's</td>
<td>43</td>
<td>3.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Fibrillation, flutter, or SVT</td>
<td>21</td>
<td>1.6</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Relative risks and p values estimated using McNemar’s method for matched pairs (RR = relative risk; SVT = supraventricular tachycardia; APB’s = atrial premature beats).
Conclusion

This brief survey documents the evidence for disparity in the relations of alcohol and CV disorders. Published reviews are available. Table 6 summarizes the relations, with emphasis on the disparity between the overall favorable relations of lighter drinking and the overall unfavorable relations of heavier drinking. 

Acknowledgment: Some of the material here reported was supported by research performed with a grant from the Alcoholic Beverage Medical Research Foundation, Baltimore, MD.

References:


Table 6. Relation of Alcohol Drinking to Cardiovascular Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Amount of Alcohol Drinking</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilated Cardiomyopathy</td>
<td>no relation</td>
<td>probably causal</td>
</tr>
<tr>
<td>Binge-beer</td>
<td>no relation</td>
<td>probably causal</td>
</tr>
<tr>
<td>Cardiomyopathy</td>
<td>no relation</td>
<td>probably causal</td>
</tr>
<tr>
<td>Acute Coronary</td>
<td>no relation</td>
<td>probably causal</td>
</tr>
<tr>
<td>Hypertension</td>
<td>little or no relation</td>
<td>mechanism unknown</td>
</tr>
<tr>
<td>Coronary Disease</td>
<td>protective</td>
<td>via HDL, anti-thrombotic effects, beverage type minor factor</td>
</tr>
<tr>
<td>Arrhythmia</td>
<td>none</td>
<td>probably causal</td>
</tr>
<tr>
<td>Hemorrhagic Stroke</td>
<td>increased risk</td>
<td>increased risk</td>
</tr>
<tr>
<td>Ischemic Stroke</td>
<td>protective</td>
<td>complex interactions with other conditions</td>
</tr>
</tbody>
</table>

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19


“At the still point of the turning world ... there the dance is.”

T.S. Eliot, Four Quartets
Ethical Principles in Clinical Practice

Each day in every clinical encounter, physicians practice ethics although they may not realize it because they lack the basic vocabulary of ethics. Ethics can be simply defined as the study of and resolution of conflicting principles. This paper will help the physician understand the vocabulary of ethics, which includes the principles of autonomy, beneficence, nonmaleficence, and fidelity and an explanation of surrogacy, capacity, and informed consent. Example cases will be presented showing how these principles sometimes conflict and how such conflicts are resolved.

Ethics permeates all that we do in medicine. Medical training indoctrinates us to practice in ways which have their foundations in historical ethical principles. Although each day we "act ethically," we sometimes don’t recognize the ethical aspects of our actions because we are not acquainted with the terminology and methodology of ethics. For instance, the mandate that we "first do no harm," the foundational proscription of our profession, is called in ethics "the principle of nonmaleficence." In recent years, the lay press and medical literature have given increasing prominence to ethical topics, making it important for the practicing physician to understand ethics terminology and principles. This paper will use clinical situations to illustrate and explain important facets of medical ethics.

**Principles and Method**

Although books are written on the definition of ethics, one useful working definition is that ethics is the study and resolution of conflicting principles. A principle is a basic foundational belief which guides actions. A number of conflicting ethical principles may be relevant and applicable to any difficult medical situation. How patients, physicians, staff and family rank and value these principles and how conflicting rankings are resolved constitutes the main work of clinical ethics.

**Autonomy**

The principle of autonomy stands for the proposition that an adult with capacity to decide has a full and perfect right to determine what may be done to his body.¹ This is a right recognized in ethics, medical practice, and law.

Justice Cardozo wrote in 1914, “Every human being of adult years and sound mind has a right to determine what shall be done with his own body.” The Bartling court in California found that “Competent adult patients with serious illnesses which are probably incurable but have not been diagnosed as terminal have the right over the objections of their physicians and the hospital to have life support equipment disconnected despite the fact that withdrawal of such devices will surely hasten death.”²

Because of autonomy, patients may refuse any proffered procedure, treatment, or even the advice of their physicians. The fact that this refusal is seen as ill-advised or even irrational by the physician does not counter moral, social, and legal norms which hold that competent patients have the right to determine their destinies.

**Competence and Capacity**

In order to exercise the right of autonomy, a patient must first possess the capacity to make decisions. In day-to-day medical practice, physicians often speak of the “competent” patient. Although this term is commonly understood and is perfectly functional, technically, only a court of law may deem a patient “competent.” When speaking of a patient’s ability to decide, physicians are actually speaking of a patient’s “capacity.” A patient who is able to make medical decisions is considered to possess capacity. A patient who is not mentally or psychologically able to make medical decisions is considered to lack capacity.

When assessing a patient’s capacity, the physician must evaluate three distinct aspects of decision making ability:

1. Patients must show that they understand the given information about diagnosis and treatment and that they appreciate the significance of the disease and its consequences. In testing for understanding, the physician might ask patients to rephrase the information he has given them.
2. Patients should be able to deliberate in accordance with their own values. Here, the physician might ask patients what is most important to them in making their decision.
3. Patients should demonstrate an ability to communicate consistent choices regarding their decisions. Here the physician might determine patients’ choices at different times to test consistency.

Confusion between these two terms, capacity and competence, has sometimes led physicians to believe that there is a requirement that they look to the courts when a patient is, in their opinion, unable to make a medical decision. Almost all courts which have addressed this issue, however, have stated that the courtroom is not the proper place to decide whether a patient is able to make a decision—instead, it is the bedside—
“Each day in every clinical encounter, physicians practice ethics—the study and resolution of conflicting principles.”

and that physicians are fully and properly empowered to determine capacity and to base medical decisions on that determination.

**Beneficence**

The principle of beneficence stands for the proposition that it is the physician’s duty to do good for his patient. This is certainly a foundational principle of medical practice, finding its roots in Hippocrates. For centuries, beneficence was actualized through the process of the patient presenting himself to the physician for examination and inquiry and then following the advice of the physician. In recent decades, societal needs for self determination have sometimes brought this principle into conflict with autonomy.

**Nonmaleficence**

Often joined with beneficence is the term, “nonmaleficence,” which stands for the Hippocratic duty to “do no harm.” One can find conflicts between beneficence and nonmaleficence in almost any clinical situation. The dichotomy between the two principles is the foundation for “risk/benefit” analysis. Using a trivial example, a physician wishes to protect his patient from tetanus by giving an injection of tetanus vaccine (beneficence), but in order to provide this benefit he must breach his duty of nonmaleficence and harm the patient by inserting a needle through the skin, causing pain and the possibility of side effects and infection. In the conflict in this example, beneficence is ranked above nonmaleficence.

**Case 1:** A 57-year-old man has been diagnosed with inoperable pancreatic cancer. His physician has explained to him the prognosis and the possibility that chemotherapy may yield a palliative effect and extend his life for a few months. In fact, the physician recommends it. After being informed of the potential and likely side effects of chemotherapy, the patient informs his physician that he declines chemotherapy.

The ethical principles in conflict are the patient’s right of autonomy versus the physician’s interpretation of beneficence. Because, ethically and legally, our society holds autonomy in preeminent regard, the patient’s wishes should be followed. This is determinedly true when the primary issue is one of quality of life. Only the informed patient can truly weigh the life-prolonging benefits of chemotherapy versus the pain he might likely suffer.

**Case 2:** A 59-year-old woman suffers from severe smoking-induced COPD with associated hypoxia and hypercapnia. During a routine office visit, she states that should the need arise, she would refuse intubation and ventilation under any circumstances. Her physician fully explains the fact that patients in her circumstances often benefit from short-term intubation. The patient was twice intubated before, and she was terrified by the discomfort, loss of control, and loss of dignity. Her physician states that he will do all that he can to keep her comfortable and to make sure that the intubation period is as brief as possible. In spite of his assurances, the patient states that she absolutely refuses intubation.

Here again, we have a conflict between the patient’s right of autonomy and the physician’s duty of beneficence. The conflict in this case is slightly more distressing in that the benefits of short-term intubation are somewhat more apparent and substantial than the benefits of chemotherapy in case 1, yet the guiding principle that a fully informed patient’s right of autonomy takes precedence over the physician’s duty of beneficence applies.

**Case 3:** Assume the same facts as those given in Case 2, but add that the patient is brought to the emergency department in respiratory arrest. Emergency department personnel intubate her and connect her to a ventilator.

Her physician is notified and comes to the hospital. He finds his patient ventilator-dependent. None of her indices make it likely that successful weaning is possible. Once again, we have a conflict between the patient’s right of autonomy and the physician’s duty of beneficence. The conflict in this case may be even more distressing because the physician now faces the reality of withdrawing ventilation, an act which will surely lead to death. Yet again, the patient’s right of autonomy provides the guiding principle. The President’s Commission in 1982 noted that, “The distinction between failing to initiate and stopping therapy—that is, withholding versus withdrawing treatment—is not itself of moral importance. A justification adequate for not commencing a treatment is also sufficient for ceasing it. Erecting a higher requirement for cessation might unjustifiably discourage vigorous initial attempts that sometimes succeed.”

Ethically, ventilation should be withdrawn.

**Informed Consent**

The principle of informed consent flows from the concept of autonomy. Not only is a patient entitled to decide what may be done to his body, the patient is entitled to receive an adequate amount of information to help him make that decision. Typically, informed consent involves telling the patient of the recommended procedure, its risks, benefits, and alternatives. Ethically, the physician should also make a recommendation and should not simply lay out his collection of medical wares and tell the patient to “pick one.”

Naturally, informed consent is closely joined to capacity. For there to be “good” = informed consent, a patient must have the capacity to decide.


**Surrogacy**

A surrogate is one who stands in the place of another. In medicine, we typically look to surrogates to help us make decisions when our patients lack capacity to decide. The fact that surrogates do make decisions is simply an extension of the principle of autonomy. Patients do not lose the right to make decisions about their health care just because they lose capacity; the mechanism by which that right is expressed changes.

It is sometimes difficult to determine who the “best” surrogate is. Typically it is a person who has the best interest of the patient at heart and who is acquainted with the patient’s past expressions, wishes, and values so that the surrogate can make the same decision the patient would have made had he able.

There are several methods to determine the surrogate. Usually but not necessarily, the surrogate is a close family member. It is the duty of the physician in consultation with the health care team and other family members to determine the proper surrogate.

Most states recognize a legal document called a Durable Power of Attorney for Health Care wherein the patient, while still having capacity, designates another person, typically called an agent or the attorney in fact, to be his surrogate should he lose capacity to decide.

Patients may sometimes expressly tell the physician their choice of surrogate. In other cases, the patient might communicate through an informal letter or other document.

It is important to distinguish a legal document from one which is legally binding. The Durable Power of Attorney for Health Care is a legal and legally binding document in most states. Just because a document is not legally binding, e.g., a living will or even a handwritten note to the physician of a patient’s wishes, it does not make that document illegal. It is up to the physician and those who know the context of the writing to attach the proper probative value to it.

**Case 4:** A 75-year-old man suffering from multi-infarct dementia suffers a massive stroke. While hospitalized awaiting transfer to a custodial facility, pneumonia develops in the patient. His physician believes that he can treat and control the pneumonia and return the patient to his baseline admitting state, i.e., unconscious and not expected to recover. In fact, the physician feels uncomfortable about not treating an incapacitated patient who is ill with a curable condition.

The patient is a widower but his daughter is well acquainted with the patient, having cared for him in her home for several years preceding the onset of his dementia. She states that the patient was always a strong-minded person and valued his independence.

As his dementia worsened, he often seemed depressed and expressed his unhappiness that he’d become a burden to his daughter.

Here we have an extension of the conflicts seen in cases 1 and 2: The physician’s duty of beneficence versus the patient’s (as expressed through his daughter) autonomy. Although the physician may not agree with the daughter’s choice, the choice is not irrational and should be followed, given the patient’s past expressed wishes and values. Although one might postulate bad faith in that the daughter acts with some self-interest, e.g., she will not have the burden of caring for her father or she might inherit, it is difficult to find a situation where some party does not have some potential self-interest in any particular decision.

**Fidelity**

Fidelity stands for the proposition that physicians keep their patients’ interests first in his mind above all others. It requires that they maintain their patient’s trust and confidences. It obligates them to carry out their promises to care for patients with faithful attention. Sometimes unfamiliar ethical terminology and perceived legal threats put strain on physicians as they try to carry out their duty of fidelity.

**Case 5:** A healthy 44-year-old woman executes a Durable Power of Attorney for Health Care naming her roommate as her agent in the event she cannot make decisions for herself. She executes this document after a long discussion with her physician in which she clearly states that should she lose hope of functioning in her position as a college professor, she would want all but comfort care withdrawn.

The patient suffers an unwitnessed, out-of-hospital cardiac arrest and is found unresponsive but recovers a heartbeat and respirations after 45 minutes of resuscitation. After a month, the patient remains deeply comatose with severe anoxic brain injury. A neurologic consultant indicates that the chance for improvement is minimal and that for recovery is nil.

You recommend that all care, including nutrition and hydration, be withdrawn, but the roommate insists that full care be provided and that in her position as agent, she has the right to make that demand.

A Durable Power of Attorney for Health Care does appoint an agent who acts with the authority of the patient, but it does not oblige all that has gone on in the past. Here the conflict is between the physician’s interpretation of his duties of fidelity, to follow the expressed wishes of the patient, and the patient’s right of autonomy as expressed by the surrogate.

In the past, some controversy has existed concerning the difference or lack thereof between withdrawing nutrition and hydration versus other modalities of care. In an opinion in the Cruzan case, United
States Supreme Court Justice O'Connor said, “Artificial feeding cannot readily be distinguished from other forms of medical treatment. The techniques used to pass food and water into the patient's alimentary tract all involve some degree of intrusion and restraint. Requiring a competent adult to endure such procedures against her will burdens the patient's liberty, dignity and freedom to determine the course of her own treatment.”

In this case, one course of action would be for the physician to tell the agent that he intends to withdraw all but comfort care as expressed in the past by his patient but to agree to do so only after the agent had an opportunity to obtain an ethics consultation or a court hearing to determine the right of the agent.

Summary

Although the example cases present challenging ethical problems, it is likely that in day-to-day clinical practice, much more difficult cases will be encountered. Medical education and the lay press have made physicians more comfortable with basic ethical principles. Decisions involving patient autonomy, beneficence, and nonmaleficence “feel” straightforward in most cases. Cases involving autonomy as expressed through a surrogate are often more difficult, but the ethical approach as explained in this article is still straightforward. Medical advances, economic pressure, and societal demands make it inevitable that even more difficult ethical dilemmas will be seen in the future. Acquaintance with the terminology of ethics will help the physician anticipate and manage these difficult decisions.

References:

For Further Reading:
Pence GE. Classic cases in medical ethics: accounts of the cases that have shaped medical ethics, with philosophical, legal, and historical backgrounds. New York: McGraw-Hill; 1990.

“Companies don’t make the most of new opportunities, because they’re making the most of old ones.”
Mustaches serve as reservoirs from which impacted pollen grains are inhaled. The resulting increase in seasonal allergic rhinitis symptoms can be ameliorated by mustache washing.

Introduction
Several patients with seasonal allergic rhinitis and mustaches noted symptom improvement after mustache washing, suggesting that mustaches serve as reservoirs from which impacted pollen grains are inhaled. Nasal vibrissae trap particles larger than 15µ in diameter.1 If mustache hairs serve a similar function, they trap airborne pollen grains (14-60µ),2 specifically oak (32µ)3 and grass (20-25µ).3

Methods
All male patients with mustaches seen between April 1 and June 30, 1996, who had at least three of four symptoms of seasonal allergic rhinitis (nasal obstruction, rhinorrhea, sneezing, nasal or palatal pruritus) and positive skin tests to the major spring allergens of oak and grass mix in the Washington, D.C. area were included in the potential study population. After three weeks of stable avoidance and nasal steroid use (four also using nasal cromolyn regularly and four also were receiving maintenance immunotherapy for longer than 18 months), we suggested that patients also shampoo their mustaches BID with a liquid soap or shampoo for two weeks. The study group consisted of eight patients 35-50 years old who met the inclusion criteria and for whom there was no significant change in the counts for the pollens to which they reacted between the standard treatment period and the period during which mustache washing was added. Six had positive skin tests to oak and grass mix, one to oak mix, and one to grass mix. Four of the study group were also using nasal cromolyn regularly, and four also were receiving maintenance immunotherapy for longer than 18 months. Because record analysis was done retrospectively for patients seen in a clinical office, there was no control group studied.

Results
After two weeks of mustache washing, the eight patients reported less frequent use of oral antihistamines and decongestants and decreased symptoms (8/8 with less obstruction, especially nocturnal; five with less rhinorrhea; and three each with less sneezing and pruritus).

Discussion
This small study suggests that mustaches serve as first a filter and then a reservoir from which pollen grains are inhaled, increasing rhinitis symptoms. Mustache washing was added after three weeks of stable avoidance and nasal steroid use, making it unlikely that the symptom reduction seen with mustache washing was due to standard treatment. Pollen counts were stable for the five study weeks, so the symptom reduction was not from a decreased allergen load coincident with the end of the season but probably from mustache washing. The symptom most reliably reduced was obstruction, probably by decreasing the persistent antigen load driving this late phase response.

Studies using a control group with unwashed mustaches correlating mustache allergen levels with rhinomanometry, nasal lavage volume and analysis, and symptoms could confirm our observation that pollen grains filtered by mustaches are later inhaled, increasing symptoms of seasonal allergic rhinitis.

References:
Carpal Tunnel Syndrome and Shoulder Pain with Particular Attention to Diabetic Patients

Shoulder pain may accompany carpal tunnel syndrome (CTS). We reviewed the clinical characteristics and electrodiagnostic findings of all patients with CTS over a 12-month period, with particular attention to diabetic patients, hoping to clarify the frequency of shoulder pain in CTS of diabetic (NIDDM) and non-diabetic patients. We found that shoulder pain was less common in the diabetic (13%) than the non-diabetic patients (49%). A tentative explanation for this observation is presented. We hypothesize that this may be due to the presence of a small-fiber neuropathy.

The carpal tunnel syndrome (CTS) is the most common compressive neuropathy. The major complaints of patients with CTS are burning pain, numbness, and tingling, usually in the thumb and palmar surface of the index and middle fingers. These symptoms are especially prominent at night and upon awakening in the morning. In the pertinent literature of CTS, proximal forearm and shoulder pain is recurrently mentioned as an associated finding of CTS. In a review on CTS, Dick and Zadik state, “From our experience and also that of Kremer et al (1953), Garland et al (1957), and Heathfield (1957), it is clear that the original description [of carpal tunnel syndrome] must be widened to include cases which, while having the typical pain and paresthesia, also have wasting of the thenar muscles, impaired sensation in the median area, and pain spreading upward from the hands even as far as the shoulder.”

Dr. George Phalen’s classic review on CTS states that pain may be referred to the forearm, elbow, or shoulder. Phalen’s classic review on CTS states that pain may be referred to the forearm, elbow, or shoulder.2 Das and Brown, reviewing complications in carpal tunnel decompression, describe 15 patients who complained of proximal pain; in all of these, the pain disappeared after surgical decompression of the median nerve.5 Peripheral neuropathy is a common complication of diabetes. CTS is the most frequent compression neuropathy in diabetes. CTS may occur more frequently in diabetics. It is postulated that an underlying peripheral neuropathy in diabetics makes compression neuropathy more likely. To our knowledge, shoulder pain in diabetic patients with CTS has not been specifically addressed in prior studies.

The purpose of our study was to investigate the frequency and clinical characteristics of shoulder pain in a group of patients with well-characterized CTS. Additionally, we hoped to compare shoulder pain in diabetic versus nondiabetic patients. We felt this comparison might assist in our understanding of the mechanisms of shoulder pain in CTS.

Material and Methods

For a 12-month period, all patients who were specifically referred for electrodiagnostic studies with a diagnosis of CTS were evaluated and their electrodiagnostic studies and charts were reviewed. All electrodiagnostic studies were performed by one of the authors (JAC). The laboratory temperature was maintained at 25° centigrade, skin temperature was measured for all patients, and if necessary, the extremity was warmed. CTS was defined electrodiagnostically as an abnormality of one of the following (normal values for standard distances in our laboratory are listed in parentheses).1,7

1) Prolonged median distal motor latency (>4.5 msec).
2) Prolonged and low-amplitude median mixed nerve action potential (palm to wrist [>2.0 msec, <50 uv]).
3) Prolonged and low amplitude median sensory nerve action potential (orthodromic stimulation [>3.5 msec, <6 uv]).
4) Fibrillation potentials confined to the abductor pollicis brevis (APB) and no electrophysiological evidence of a more proximal process, such as plexopathy or radiculopathy.
5) Normal median nerve conduction velocity and amplitude in the forearm segment.

If a generalized peripheral neuropathy existed by electrodiagnostic criteria, the patient was excluded from the study.

The charts were examined to document: the age and sex of the patient; duration of symptoms of CTS prior to the electrodiagnostic study; which hand was involved; whether shoulder pain existed in temporal association with CTS; symptoms related to CTS; roentgenograms (if performed) of neck, shoulder, wrist, and hands; associated diseases; neurodiagnostic tests; and response to various therapies for CTS. By performing this extensive review, we hoped to exclude all other causes for shoulder pain. The World Health Organization Report of 1985 was used for the confirmation of non-insulin-dependent diabetes mellitus patients. The patients included in the study were examined by a rheumatologist (D. H.) to exclude other causes for shoulder pain and were also evaluated by a neurologist (J.A.C.). Specifically, the diagnoses of cervical radiculopathy and significant arthritic involvement of the shoulder were excluded. The decision

Jeffrey A. Cohen, MD is a Neurologist for the Colorado Permanente Medical Group, PC (CPMG) in Denver. Photos not available for David M. Collier, MD and Karl F. Gross, MD, both from the University of Colorado Health Sciences Center.
to perform x-rays was based on the best clinical judgment of a board-certified neurologist and a board-certified rheumatologist. We felt this represented the “real-world” situation of usual clinical practice in which x-rays are performed only when clinically indicated. Shoulder x-rays performed in eight patients demonstrated no significant joint pathology to account for their shoulder pain. Results of the treatment of CTS and the effect on the shoulder pain were evaluated in person or by telephone interview by one of the authors (J.A.C.).

Results

Eighty-five (85) patients with CTS were identified. Of this group, documentation of clinical characteristics and electrodiagnostic testing were judged to be adequate in 67 patients (94 extremities). The other 18 patients were excluded for the following reasons: Lack of cooperation for complete electrodiagnostic testing, lack of follow-up treatment, or failure of telephone follow-up. The distribution of diabetic (4) versus nondiabetic patients (14) who were excluded was approximately the same as that of the study patients.

Shoulder pain was present in 41% of the patients. Shoulder pain was less frequent in the diabetic (13%) versus nondiabetic patients (49%) (t test p<0.01). The clinical characteristics of the diabetic (NIDDM) and nondiabetic patients were comparable with respect to sex, age, and side and duration of symptoms (Table 1). The two groups did not differ significantly in their response to therapy such as splints, injection, and surgery (Table 2). The following abnormalities of electrodiagnostic testing were significantly worse in the diabetic patients: median distal motor latency, median distal sensory latency, neuropathic changes of motor unit action potentials in the APB, and fibrillation potentials in the APB (Table 3).

A negative correlation (r = -0.52) existed between the presence of denervation potentials in the APB and the presence of shoulder pain.

Discussion

Shoulder pain is relatively common in CTS. In the group of nondiabetic patients it occurred in 49% of the patients. Interestingly, shoulder pain occurred less frequently in the diabetic patients (13%). The clinical characteristics were otherwise similar between the two groups. The electrodiagnostic data demonstrated more severe median nerve involvement in the diabetic patients. In particular, a negative correlation existed between the presence of fibrillation potentials in the APB and the presence of shoulder pain. This negative correlation may support the existence of a small-fiber neuropathy, since the fibrillation potentials suggest axonal injury.

<table>
<thead>
<tr>
<th>Table 1. Clinical Characteristics</th>
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<tr>
<td></td>
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<tr>
<td>Sex</td>
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<tr>
<td>Age</td>
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<tr>
<td>Side of CTS</td>
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<tr>
<td>Duration of Symptoms</td>
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<tr>
<td>Presence of SP</td>
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<tr>
<th>Table 2. Response to Therapy</th>
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<td></td>
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<tr>
<td>Splints*</td>
</tr>
<tr>
<td>Injection*</td>
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<tr>
<td>Surgery*</td>
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</tbody>
</table>

0 = No response, 1 = partial response, 2 = complete response * not significant by t test, between the groups

In a study of 60 diabetic patients with shoulder pain,9 37 had hand syndromes such as Dupuytren’s contracture or limited joint mobility, but only 6 of those (10% of all patients) had a history of CTS surgery and none had active CTS at the time of the evaluation. This study supports our observation that shoulder pain in diabetic patients is rarely associated with CTS.

We postulate that shoulder pain is less common in diabetic patients with CTS because of the presence of a small-fiber peripheral neuropathy which may interfere with the phenomenon of referred pain. We believe referred pain is the most likely mechanism of shoulder pain in the setting of CTS. We assume that the referred shoulder pain of CTS is dependent on distal nerve fibers.

Absence of shoulder pain in CTS of diabetic patients may thus be analogous to the presence of myocardial ischemia in diabetic patients. This phenomenon of silent or painless myocardial ischemia in diabetic patients is explained by the loss of visceral afferent fibers,10,11 which are small, lightly myelinated or unmyelinated fibers. In diabetes, the peripheral neuropathy may affect small-fiber function. We hypothesize that this loss of small-fiber function may result in the loss of shoulder pain otherwise commonly associated with CTS.12 Excluding patients who demonstrated a generalized peripheral neuropathy on electrophyslogic testing did not exclude the possibility that a small-fiber neuropathy existed in our patients, since nerve conduction studies only assess the largest, fastest myelinated fibers.13 Assessment of a small-fiber neuropathy is difficult at best, usually requiring a nerve biopsy for confirmation.14 The confirmation of a small-fiber neuropathy by autonomic testing is not always reliable.13
In addition, the severity of the electrodiagnostic findings in diabetic patients may also be related to compromised small-fiber sensation, less perception of pain, and a later clinical presentation of CTS.

In summation, we believe that our study supports the relation between the presence of a small-fiber neuropathy and the absence of shoulder pain in diabetic patients. Unfortunately, the evidence is indirect because of the difficulties in conclusively documenting the presence of a small-fiber neuropathy.

References
5. Das SK, Brown HG. In search of complications in carpal tunnel decompression. The Hand 1976;8:243-249.

“A poorly observed fact is more treacherous than a faulty train of reasoning.”
Paul Valery, French philosopher

<table>
<thead>
<tr>
<th>Table 3. Electrodiagnostic Testing</th>
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<tr>
<td></td>
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<tr>
<td>Diabetic (NIDDM)</td>
</tr>
<tr>
<td>Median distal motor latency*</td>
</tr>
<tr>
<td>Median distal sensory latency*</td>
</tr>
<tr>
<td>Nondiabetic</td>
</tr>
<tr>
<td>93% ± .02</td>
</tr>
<tr>
<td>84% ± .06</td>
</tr>
<tr>
<td>Fibrillation potentials in the APB</td>
</tr>
<tr>
<td>70% ± .07</td>
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</table>

* An absent potential = 7 msec for statistical purposes
** High amplitude, prolonged duration, increased polyphasia of motor unit potentials
Northeast Division Affiliation with Community Health Plan, A Staff Model HMO

This article explains the necessity for the Northeast Division to affiliate with a major established HMO in order to become a true regional player in the Northeast. It describes what the focus has been to integrate the Northeast Permanente Medical Group and the Community Health Plan staff model clinicians and how the process is progressing.

It is an honor and a pleasure to write the first Medical Directors Report in the new Permanente Journal. I am particularly grateful for the opportunity to tell our story because what has happened here in the Northeast during the last year is critical as Kaiser Permanente faces two significant challenges: successfully affiliating with other organizations and growing through more diverse, network-based delivery systems. Those of us in Permanente Medical Groups, and in the newly formed Permanente Federation, must learn how to manage quality in network-based delivery systems and create and nurture new Permanente Medical Groups.

As 1996 began, the Northeast Region of Kaiser Permanente served 116,000 members in 13 health centers in Western Massachusetts; Hartford and Stamford, Connecticut; and White Plains, New York. The Region had been created by the successive acquisition of three pre-existing HMOs over a period of 14 years. Northeast Permanente Medical Group (NPMG) consisted of 120 physicians and a like number of associate practitioners who were divided into three distinct local Medical Groups, each with its own Board of Directors and its own Medical Director. The three groups were led by an Executive Medical Director; Simi Lyss MD, accountable to an over-arching Board, the Northeast Permanente Management Corporation. This Board, in concert with Dr. Lyss and the three Area Medical Directors, was responsible for ensuring consistency of clinical practice and Group management throughout the Region.

The Northeast Region was not dominant in any of its markets except the relatively rural Western Massachusetts. Although net income had been positive for the previous six years and the Region had attained a positive net worth and very good quality and service performance, membership in its health centers had been flat for several years. There was, however, encouraging growth in newly formed networks in all three of our areas.

Both Program and Regional leaders had realized for some time that success for the Northeast Region depended on our becoming a larger, truly regional player in the greater Northeast. It was unlikely that we could do so without completing a major affiliation with an established partner.

When we first began speaking with Community Health Plan (CHP) in 1996, it was a 19-year-old, not-for-profit plan, well known and respected in its several markets: Vermont, Eastern and Central New York State, and Western Massachusetts, where it competed actively with Kaiser Permanente. CHP had been founded as a staff model and still served 180,000 of its 400,000 members in 41 health centers, many of which were small medical offices with two to four physicians in rural areas of the Northeast. Several years earlier, the Plan had responded to insistent requests by major customers to expand choice by creating affiliated networks. In the following 15 years, the organization expanded its affiliated network to include more than 6,500 physicians and established several joint ventures with integrated delivery systems, such as the Bassett System in Cooperstown, New York.

CHP, too, aspired to be a major player in the Northeast. Despite impressive membership growth and delivery system diversification, their leaders concluded that the Plan would need to affiliate with a larger, preferably national organization to thrive over the long term. They entered into discussions with several potential partners, including Kaiser Permanente. The commonalities of history, mission, and culture made it clear in the spring of 1996 that an affiliation of CHP and KPNE would benefit both organizations and create a formidable new organization in the Northeast. On April 12, at a press conference in Albany, the two organizations announced their intention to affiliate, pending regulatory approval. On July 22, CHP became a subsidiary corporation of Kaiser Foundation Health Plan.

From our earliest meetings together, the clinical leaders of the two organizations—Bruce Nash, MD, CHP Medical Director; John Chartie, MD, Associate Medical Director for Quality Management; Simi Lyss, MD; and I (Associate Medical Director at that time) agreed that the most effective way to integrate NPMG and the CHP staff model clinicians would be to focus on common clinical management. From the beginning, we shared our quality and resource management plans and programs and began to learn from and help each other. Over the last nine months, for example, NPMG and CHP clinicians have worked closely to create a group of common clinical guidelines and a unified 1997 QRM workplan for the entire Division.

Structural, formal integration of the two groups of clinicians, however, has been a more complex matter without precedent in the history of Kaiser Permanente. At the time of the affiliation, leaders of CHP believed that CHP staff model clinicians should have
the right to choose their future, whether to join NPMG, form a separate medical group, or some other choice. Furthermore, NPMG’s Board of Directors had decided, before the affiliation with CHP, that our Medical Group needed to re-evaluate our governance and management structures as well as our financial relationship to Health Plan. We had decided to engage consultants from American Practice Management (APM) and Dr. Marc Bard, who had worked with us for a number of years. Marc and Carl Mankowitz MD, a partner from APM in Manhattan, had worked together to help Harvard Community Health Plan’s staff model evolve toward self-governance, and we believed that their experience would be valuable to us.

Discussions about this work with CHP leaders resulted in a joint effort that began in November, following a weekend retreat in the Catskills, where NPMG and CHP clinicians met to learn more about each other and tentatively explore how we might most effectively work together.

Two parallel work groups were formed, one for NPMG and one for CHP. Although NPMG’s pre-existing board structure provided a basis to constitute our group, CHP clinicians faced the dilemma of how to create a workgroup with legitimate authority, since they had no prior governance structure. A general election involving all their staff model clinicians resulted in the choice of 14 people representing the various clinical disciplines and geographic areas within CHP.

The two workgroups, facilitated by the consultants, labored in parallel for approximately ten weeks. The NPMG group focused on creating an aspiration that would enhance its performance and address the complexities of the new Division, including the relationship with Health Plan and the CHP clinicians. Meanwhile, the CHP workgroup focused primarily on the form of their future structure; they considered a number of options, including becoming a Permanente Medical Group.

When it became clear that the directions of the two groups were converging, the CHP workgroup expressed keen interest in learning more details about NPMG and Permanente Medical Groups in general. Several members of the NPMG workgroup and I met with the CHP workgroup and tried to convey the essence of what it means to be a Permanente physician or associate practitioner. We were honest with our colleagues: we stressed that NPMG faces significant challenges and that those of us in the Group must learn to embrace change, even when the change is painful. We talked about accountability and ownership. We stressed the value of self-governance and self-management and the unique partnership that we enjoy with our Health Plan colleagues. And most important, we emphasized that our strongest commitment is to finding better ways to deliver care and service that is affordable to our members. Al Weiland, MD, the Northwest Permanente Medical Director, came to speak with the CHP workgroup about the value of belonging to a Permanente Medical Group, the significance of the new Federation, and the range of new capabilities that would be developed through PermCo.

In March the two workgroups joined in a series of day-long meetings in the Berkshire Hills of Western Massachusetts. Those discussions between the CHP and NPMG workgroups proved to be extremely productive. Over a brief period of several weeks, the group of 20 or so people faced difficult problems, talked through, showed a remarkable capacity to compromise creatively, and ultimately produced a set of recommendations supporting the formation of a common Permanente Medical Group in the Northeast. That Medical Group will likely consist of six local groups, each with its own Board of Directors, to accommodate both the state laws in the Northeast and the geographical size of the Division. Those six groups will be held together by the Northeast Permanente Management Corporation and its President, the Executive Medical Director. The completed recommendations, which address issues such as shareholder status, Board composition, Group leadership, and the role of associate practitioners, will be presented in April to the CHP clinicians for ratification and to the NPMG Board of Directors for approval.

During the last year the Northeast Division has been on the exciting and uncomfortable “cutting edge” of integration in Kaiser Permanente. We have learned a number of lessons that can be useful to the Permanente Medical Groups and to the Health Plan as they strive together to become the national leader in health care:

• Clinically focused integration is an effective way to bring together groups of clinicians; concerns about improving clinical care provide common ground and are a natural bond for people who take care of patients.

• Even in organizations with apparently similar cultures and traditions, the differences that inevitably exist cannot be underestimated but instead need to be recognized and respected. It simply isn’t adequate to say, “we’re so much alike that we will obviously agree.” When true differences are acknowledged as soon as possible, it is more likely that they will be successfully confronted and overcome.

• Relationships are more likely to succeed when people enter them freely and with enthusiasm. A forced union of CHP clinicians and NPMG earlier in the process would not have worked.

• We in the PMGs have much to be proud of but also much to learn. Our CHP colleagues, for ex-
ample, have extensive experience in developing and managing affiliated networks and joint ventures. That experience can prove invaluable not only to us in the Northeast but to other Permanente Medical Groups throughout the country.

- We had to constantly remind ourselves that our real goal was not integration for its own sake, but the improvement of performance in all areas. Coming together was a means to an end, not an end itself.

This has been a difficult year, and many of us asked ourselves from time to time, “would we do it again if we knew what we know now?” The answer, even with all the problems we have faced and still do face, is a clear and strong “Yes!” The rationale for the affiliation of CHP and Kaiser Permanente Northeast is as compelling now as it was a year ago, and there is already good evidence that our new Medical Group and our new Division can capitalize upon the experience and knowledge of each organization to produce a powerful competitor in the northeastern United States. The kinds of challenges we have faced in the last year are the kinds of challenges that Kaiser Permanente will necessarily deal with as it seeks to grow to 15 million members in the next five years. The management of diverse delivery systems, and the management of “new relationships” will have to be core competencies for us. That work has begun already in the Northeast, and I am proud to have been a part of it. 

“Cultural schizophrenia: The modern condition born of a disconnection between attitudes and behaviors, between the world as it is presented and the world as we intuit it to be. Cultural schizophrenia occurs whenever society begins to reinvent its vision of how it will conduct affairs in the future.”

Computerized Expert Health Assessment with Automated Health Education

Needs and Background
The sequelae of adolescent sexual activity, pregnancy, childbearing, suicide, and substance abuse are very costly social, economic, and health problems, and there is now a real impetus in Kaiser Permanente to address these problems in a cost- and time-effective manner. Many programs have tried to identify high-risk adolescents, to provide health education to prevent behaviors with poor outcomes, and to promote professional intervention, but most have had only limited success. Studies suggest that most adolescents rarely seek care from their usual physician in areas of sexuality, substance abuse, and emotional upset. Therefore, teenagers may fail to realize they need health education and services.

The sensitive nature of the issues creates discomfort, avoidance, and confidentiality problems and presents numerous barriers to effective preventive health measures now required by HEDIS and various accreditation agencies. This requires time-consuming clinical encounters, and many providers experience discomfort when engaging these problem areas. This discomfort is partly due to the nature of the issues, lack of prearranged referrals and resources, and the unpredictable time required, which affects the routine clinic schedule. A comprehensive health history requires a complete behavioral history. A face-to-face interview may yield biased responses and may involve interpersonal barriers such as guilt, mistrust, embarrassment, and confidentiality, which can prevent the clinician from delivering important health risk reduction messages. The use of a pre-interview written questionnaire obviates some barriers and expedites the face-to-face clinical interview by obtaining a more accurate behavioral health history.

Description of Clinical Tool
The individualized attention of a personal interview and counseling can be simulated through the use of an expert, interactive multimedia computer; it controls feedback so that branching and decision-making depend on the patient’s responses. It also eliminates other interpersonal barriers such as avoidance, denial, discomfort, and confidentiality issues. Because most youths are familiar and comfortable with computers, the computer’s ability to respond with selective, personalized feedback creates intense attraction. Computers have been used very effectively to take medical and behavioral histories. Patients have indicated that they prefer interactive computer programs to human interviewing or to human advice on sensitive topics.

Adolescents readily reveal sensitive information to a computer. My previously reported study compared 265 anonymous computer users and a matched group of 294 users who were pre-directed to share a printout of sensitive questions with a clinician. Both groups showed comparable sensitivity that was greater than that of a matched written questionnaire group of 240, suggesting the superiority of the computer over a written questionnaire for detecting sensitive issues. I found that the computer is perceived by teenagers as anonymous and nonjudgmental, and adolescents are more likely to share personal information with a computer if they know they will get immediate, individualized feedback from the computer.

The “Youth Health Provider” multimedia program was developed and evaluated as an expert tool to assist in solving limitations in biosocial screening and adolescent evaluation and to provide multiple levels of interactive health education. An interactive multimedia presentation followed by printed information together provide specific health education, directed medical advice, and referrals. These referrals to health resources empower Kaiser Permanente patients and facilitate professional interventions. Additionally, the computer conserves professional time when the clinician is given a problem-list printout from the teenager’s assessment.

Design of Interactive Multimedia Computer Program
A practical health screening and educational tool requires an interactive multimedia computer program with internal consistency, built-in clinical logic validations, and reliable educational feedback formulations acceptable to patients. The program is designed to privately take a comprehensive medical and behavioral health history covering all the preventive health issues required by the AMA Guidelines for Adolescent Preventive Services. The software was developed and revised after numerous pilot tests and checks for operational validity and reliability. The program accomplishes a health interview and evaluation in the history-taking format a clinician would follow, and it uses complex logic checking to assess health behaviors and provides feedback to the adolescent. The entire program is self-service, requiring no supervision. The specific computerized procedures:

- obtain a thorough behavioral and health history
- identify and prioritize problem areas and health needs

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• provide problem-specific health advice and local referrals
• give selective age-specific anticipatory guidance
• provide assessment response data for clinician’s evaluation
• administer pertinent, succinct health education videos
• dispense specific printed take-home materials

Complete privacy while using the computer is strictly enforced. The youth types his or her first name, and the computer addresses him or her personally by name. For cultural appropriateness and to maximize rapport, all video presentations show peers of the same race, culture, and gender as the patient. The program opens with an introduction by a youth “peer counselor” explaining the purpose of the program. It emphasizes giving honest answers and repeatedly suggests that the youth share printout information with the clinician.

Questions are spoken through headphones and are printed onscreen, and each answer requires pressing only one button or touchscreen. This interactive branching program takes a directed history based on specific screening questions and on previous answers, logically proceeding as would the physician. The interview usually takes about 15 minutes to complete. Some teenagers may be asked only 50 minimum screening questions, whereas others can branch to 350 possible questions based on responses requiring more in-depth exploration. The program internally validates certain responses for consistency and confirms crucial branch-point questions, maximizing specificity of interview. The program database will permanently keep an encrypted record of the user’s responses, which is retrieved at later interviews by identifier password or Kaiser Permanente medical record number. Thus, subsequent questioning will not ask the forever-positive questions again (i.e.: ever had sex, high blood pressure, etc.), and this way an intelligent follow-up of previously identified issues can be accomplished. The software was designed to operate on external audio and video files which can be amended, deleted, or inserted as needed. To make the program compatible with any Kaiser Permanente clinic patient-flow pattern, the total time spent on the interactive visual portion may be determined by the teenager or clinician, and the patient may return later to continue the presentation where he or she stopped. All interview questions, anticipatory guidance, and health education are presented in a way that is specific for the gender, race, and culture of the user.

Printed medical advice includes specific health observations and recommendations. The printed handouts are written versions of the scripts of the multimedia presentations. To save printer paper and time in busy clinic settings, the patient may be directed by the computer to take preprinted handouts by number from a rack next to the computer. Medical referrals to resources for specific services are made through selectively printed local telephone numbers or through Kaiser Permanente resource numbers as well as national toll-free 800-numbers. There are also specific referrals to call and hear prerecorded telephone health messages such as Kaiser Permanente HealthPhone (1-800-33-ASK-ME) on relevant health topics. Referrals are also made to appropriate health education computer games and to computer-assisted instruction programs. For example, the “Babynage” addresses parenting desires and needs, and the “Romance” game covers sexual survival skills, information on abstinence, responsible sexual decision-making, and contraception.

The computer completes the interview, prints feedback, dispenses specific handouts, then administers relevant audio-visual selections from its library of high-impact health education multimedia presentations. Assessment data for the clinician are provided as a printed problem list or can be uploaded to an electronic medical record. The patient may offer this tear-off data voluntarily, which facilitates accuracy of the history and expedites the clinical evaluation.

Results

Subjects

I compared 3,327 adolescents at the Kaiser Permanente Honolulu clinic with 288 adolescents in detention, in runaway shelters, and in a youth correction facility. The age range was 13 to 19 years (mean age of 15.5 years), and 80% were female. Anonymous response data were saved on disk. There were only about 3% refusals due either to time constraints or to “computer shyness.”

Methods

Four different evaluation approaches were used to study the following topics: a) educational evaluation to compare computerized multimedia vs. printed ma-
terial, b) user responses to the computerized interview, c) impact of the program and printout on individual adolescents, and d) risk profiles compared for the two adolescent populations: clinic and detention. This information is used to determine how the computer can provide more comprehensive risk profiles than conventional medical evaluations, to externally validate computer-collected data with other surveys, and to look at high-risk health needs of both groups.

**Findings**

**Computerized multimedia vs. printed material**

I compared two different educational media by measuring improvements in users' knowledge about smoking and sex. Test instruments based on the content of each presentation script were developed to assess impact of two different automated interventions. For a random sample of 595 anonymous, matched clinic subjects, one third had audio-visual presentations administered by computer; the second group watched no presentations but were given handouts identical to the scripts; and the last (control) group was made up of computer users without handouts or presentations. Measurements of six knowledge items about smoking and sex were separately made for the control group and two experimental groups. Media users increased their knowledge of oral contraceptives, HIV testing, Depo-Provera, cigarette costs, smoker health care costs, and nonsmoker longevity. The 215 computer/presentation users had 57% more knowledge improvements than the 194 computer/handout users; both experimental groups showed significantly greater knowledge gains (p<0.05) than the control group of 186.

**Reactions to computer interview and program feedback**

The interview asked for a self-report of their opinion about their computer interaction. The computer asked the interview assessment questions at the end of each health screening interview, before any feedback. Therefore, these responses reflect only the youths being questioned by the computer, rather than any reaction to the presentation or printout. The computer asked: “How honest and accurate have you been with me on these questions?” — 84.9% of the teenagers responded that they were totally honest and accurate, 8.7% responded that they were not completely honest, 5.0% said that they couldn’t understand some of it, and 1.4% indicated that they were “pretty inaccurate.” Only 0.9% more teenagers in detention said they could not understand some of the program, but none said they were “pretty inaccurate.” When all teenagers were asked how they would prefer to be interviewed, the computer was preferred by 88.6%, 5.8% preferred a face-to-face personal interview, and 5.6% preferred a questionnaire interview. When asked if it is easier to talk honestly about these kinds of questions with a person or a computer, 84.3% picked the computer.
complete them anonymously; 97.5% responded that they had told the computer their “real and true” information, and 96.2% felt that the computer “asked good questions.” There were 95% who reported that they did read the printout, 94% said that feedback advice made good sense to them, and 97% felt the content applied to them. Only 44% said they spontaneously shared the printout with a doctor, nurse, or adult. When asked if they would like to use the computer again sometime, 87% responded affirmatively.

**Computer-generated risk profiles developed from user responses**

I evaluated how the computer can capture sensitive interview data not normally shared with health providers and how the interaction between provider and patient might improve because of disclosed information which would otherwise be unknown to the provider. Table 1 is a summary.

Twenty-two percent of all teenagers used marijuana at least monthly; 15% of males and 10% of females used it weekly or more frequently. No alcohol use was found in 56% of teenagers; however, 26% admitted to drinking up to twice a month, and 17% drank at least every weekend.

The computer interview found that 14% of all teenagers had previously attempted suicide (9.8% of males, 17.8% of females). There were positive statistical associations (all p < 0.001) between drug use and other personal issues: school problems; arguments, fights, or misunderstandings with friends, parents, or others; worries, pressure, or stress; problems at home with parents or with other family members; previous suicide attempts; and sexual abuse.

Forty-three percent of teens were sexually experienced. The age of initiation of sexual intercourse is shown in Table 2. Sexually experienced teens were asked frequency of any kind of contraceptive use: 31% always, 23% sometimes, and 46% never. I found 34% of sexually experienced males and 29% of such females felt that birth control pills were unsafe. There were 11.6% of sexually experienced girls who wondered if they had something wrong with them so they could not get pregnant, and 41% of these girls were having intercourse more than once every two weeks. As many as 4.7% of males and 10.5% of females said they had a recent genital discharge or dysuria. Only 24% of males wanted information or pamphlets on birth control, whereas 40% of females wanted this information.

For female teenagers, 16.1% were determined by the computer to be at risk for pregnancy at the time of interview. They were then assessed for other behaviors: Alcohol use on a regular basis was associated with twice the chance of pregnancy (p < 0.001). Recreational drug use was associated with more than twice the chance of pregnancy (p < 0.001). Of sexually experienced females, 39% were possibly pregnant. Only 57% of sexually experienced females had ever had a pelvic exam. Reported pregnancy (or its possibility) was combined with other responses such as drug and alcohol use and other high-risk behaviors to determine some of the educational feedback appropriate for a given user.

The computer interview found that 14.5% of girls and 4.8% of boys had been sexually abused. The mean age at first occurrence was 10 years old. Sexually abused teenagers (n=407) had significantly more alcohol and marijuana abuse (26% vs. 13%; p<.001), and other substance abuse (78% vs. 10%; p<.001). They were four times more likely to have attempted suicide (41%) than those who were not abused (10%). In one clinic subgroup, the computer recorded sexual abuse for 47 males and 170 females, and 53% of these males and 63% of these females shared their printout with a clinician. All these 132 teenagers whose abuse surfaced as a result of sharing the printout with a clinician had a positive outcome. Counseling was provided, and 1 out of 8 required active intervention such as reporting.

**Detainees**

The 288 teens in detention and runaway shelters were compared with those in clinic. These highest-risk teenagers (often with low reading ability) were quite capable of engaging the interview program reliably and with valid, consistent results, yet it took them 50% longer to complete when the computer did not read the questions aloud. There was no difference in reported honesty, and detainees preferred a computer over a personal interview just as

| Table 1. Percentage of Youth With Risk Behaviors |
|---------------------|--------|---------|--------|---------|--------|----------|--------|
| Age Range | Sexual Activity | Heavy Alcohol Abuse | Heavy Marijuana Abuse | Other Substance Abuse | Sexual Abuse | Suicide Attempt |
| Clinics (N = 3,327) | 13-19 | 43 | 17 | 10 (F) | 6 | 5 (M) | 15 (F) |
| Detainees (N = 288) | 13-17 | 82 | 85 | 88 (M) | 45 (F) | 40 | 16 (M) |

| Table 2. Percentage of Male and Female Adolescents Having Had Sexual Intercourse By Age |
|---------------------|-----|-----|-----|-----|-----|-----|-----|
| Age | Male | Female |
|-----|-----|-----|-----|-----|-----|-----|
| 13 | 13 | 11 | 22 | 25 | 39 | 51 | 51 | 52 | 51 | 63 | 72 | 79 |
nondetainees did but were even less willing to fill out written questionnaires (3.1%) than nondetainees (5.9%). Comparing the responses of detained teenagers to the others, substance abuse was 8 times more common, and recreational drug use was found in 40% of the detainees (vs. 6.6% for nondetainees). Detainees had four times the risk of suicide. Twice as many detainees (82% vs. 43%) were sexually experienced, and twice as many female detainees (35% vs. 16%) were then at risk for being pregnant when compared with nondetainees. The computer also detected that 16% of males and 41% of females were sexually abused. These data are consistent with known statistics for detainees.22,23

Observations and Kaiser Permanente Clinical Experience

Each installation required dedicated space, integration into the clinical setting, staff training on protocol, and designated staff to replenish handouts and to turn on computers each morning. Smooth implementation occurred when noninterference with patient flow was assured and when preestablished resources were in place for referrals.

A champion at each site was important initially to promote the program, but within six months after implementation, pediatricians and nurse practitioners were routinely referring their teen patients with suspected psychosocial or sexual problems to the computer for help with assessment. With the computer, the Kaiser Permanente Adolescent Consultation Clinic was able to greatly expedite assessments of complex patients who were referred. This made it possible to increase by approximately 25-35% the number of patients that could be comprehensively evaluated.

A useful clinic protocol was initiated where the intake nurse routinely asked every teenager to hand her the response printout so she could give it to the physician before seeing the teenaged patient; this was rarely a disclosure issue, with only about 1 in 40 adolescents declining to share their printout. When the physician referred to printed sensitive responses during interview, the teenagers' usual reaction was acceptance of the need to open a discussion. Only 3 out of 3,327 teenagers asked if their answers were being recorded in the computer, and the explanation of anonymous recording satisfied them.

Discussion

Automated health assessment combined with directed multimedia education can promote optimal decision-making and quality health care to more patients, can expedite accurate clinical assessment, and can provide health education for good health choices. Such technology seems almost critical for Kaiser Permanente as a time-efficient approach with a preventive health emphasis. Most of the cost of implementing the program is incurred at startup, but in the long term, automated health assessment may be less expensive than retraining or hiring staff. The computer can facilitate a realistic understanding of the consequences and outcomes of health behaviors. It provides the opportunity to connect patients to their caregivers and can measurably improve health education.

The global responses to the issues, when compared to known norms, suggest accurate input to the computer. Because nearly all patients read the printout, the necessary information is reaching each teenager (96% said the printout was applicable to them). Only 44% spontaneously shared their printout with a doctor; a nurse, or an adult, but nearly all would do so when asked, which suggests that this automated method provides a solution for addressing sensitive issues and breaks down barriers to delivery of and receptivity to health messages. Patients clearly preferred the computer over a questionnaire or personal interview.

The computer also enabled collection of statistical health data for research or survey purposes. Medical record data links to and from clinical office information systems allow transfer of patient data, making the computer fully interfaceable with an electronic medical record. With this reference database in place, intelligent interval assessment and follow-up of prior evaluations allows patients to monitor their health behaviors and consequences.

Multimedia health education offers visual presentation with audio explanation, making information quickly and easily understandable. Immediate feedback provides personal reinforcement of material and is highly motivating. In the clinical setting, computerized interview appeared to decrease anxiety associated with sensitive issues for both doctor and patient. Using it to address these issues can demonstrate that the physician is concerned about these aspects of the patient's life and can facilitate more open communication. Physicians seemed to have found computer-assisted video a reliable, time-saving health education tool, as the face-to-face interview was comfortably primed with behavioral health information. Estimates of physician interview time which can be saved suggest that the computer is fast, economical, and cost-effective.48 Enthusiasm for use of technology was not limited to patients and practitioners, but administrators saw it as a marketing tool and as a progressive solution to educational needs. Automated interview and health education almost eliminates avoidance, mistrust, and discomfort in sharing sensitive problems. It enhances clinicians' ability to promote quality health care to more patients.
rate, painless, easy, and saves professional time. Such an evaluation combined with interactive educational multimedia is credible and provides better retention. Computerized health assessment with educational multimedia may be one of the most promising interventions for health promotion and disease management at Kaiser Permanente.

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“When there is no wind, row.”
Portuguese proverb
Patient Satisfaction: Comparing Physician Assistants, Nurse Practitioners, and Physicians

Objective: To evaluate patient satisfaction with care as managed by different types of providers: physician assistants (PAs), nurse practitioners (NPs), certified nurse midwives (CNMs), and physicians.

Methods: Questionnaires were mailed to members of a large health maintenance organization who visited medical offices in any of five medical specialties during 1995 or the first half of 1996. Patient-generated scores for eight provider attributes were combined to generate a mean score for each attribute by provider type. Scores were then compared.

Results: Satisfaction was reported by 89% to 96% of patients of PAs, NPs, CNMs, and physicians with regard to courtesy, understanding of problem, ability to explain, use of understandable words, listening, time spent, and confidence in provider. Clinicians in orthopedics and in obstetrics and gynecology scored slightly higher than did primary care clinicians. No statistically significant differences in scores were seen between providers by type, by age, by gender, or by length of employment.

Conclusion: Patient satisfaction with interpersonal care appears to depend on communication and style and not on type of provider. These findings suggest that policy decisions to incorporate PAs, NPs, and CNMs into medical practice have gained patient acceptance.

Patient acceptance and satisfaction with care has only recently received attention in the medical literature. Interest has grown concomitantly with increasing competition among health plans. Because they need to attract and retain members, health plans are particularly interested in ensuring member satisfaction. Measurement of satisfaction levels is believed important also because evidence indicates that satisfied patients are more likely to feel they have participated in decision-making and will more likely follow through on those decisions when compared with those who are not satisfied.

Understanding patient satisfaction with care is therefore critical if health plans are to be successful. Having a variety of types of providers for health plan members to choose from has helped to meet diverse needs of patients. However, little research is available comparing the satisfaction of patients when different types of providers see similar types of patients.

One type of health maintenance organization (HMO), Kaiser Permanente of the Northwest (KPNW), has been a site for member health plan population studies for more than 25 years. An extensive personal interview of a cross section of members was done from 1970 through 1971 (in which a 92% response rate was attained), and this cross section was restested in 1974. This work has laid the foundation for the Current Membership Survey series by researchers Pope, Freeborn, and Marks at the KPNW Center for Health Research. A second series of annual mail questionnaire surveys, The Surveys of Medical Office Visits, was initiated in 1991 and supplements the Current Membership Survey. These evaluations of visits to physicians, PAs, NPs, and other providers focus on patient satisfaction.

Results from these membership surveys consistently reported that about 75% of members were either satisfied or very satisfied with providers. The attributes examined were medical knowledge, technical skill, communication, and interpersonal skills. When the same set of data was examined with the focus on member satisfaction with all primary care providers, satisfaction levels ranged between 78% and 94%. When types of providers were examined within specialties, members rated PAs and NPs nearly the same as physicians except that pediatricians were rated higher than pediatric PAs and NPs.

Recently, a new survey tool was developed to provide individual clinicians with feedback from patients about the care they experienced during a recent office visit. Titled “The Art of Medicine,” this survey instrument was developed by Mekl, a pediatrician in the Kaiser Permanente Rocky Mountain Division. He examined the literature, reviewed communication surveys, and after extensive research, introduced the survey instrument to the Colorado Permanente Medical Group in 1990. Used in 10 of the 12 Kaiser Permanente Regions to date, the instrument has been extensively tested and its format modified to comprise 8 questions.

It was this survey tool that was used in the current study to examine effectiveness of communication of physicians, PAs, or NPs with patients.

This study explored differences in patient satisfaction with physician and nonphysician providers.
A second objective was to examine concurrently the attitudes of patients of three types of providers to see if previous observations could be supported by a large-scale study.

The introduction of PAs and NPs into both primary care and certain aspects of specialty care is of interest for a number of reasons. PAs and NPs have been an integral component of the medical staff for more than 25 years, but their status has been viewed differently among managers in different programs. Some Kaiser Permanente Regions intensively integrate these providers within staff; others have introduced them in more limited and restricted fashion. Because decisions about how these nonphysician providers are used seem to be more a function of physician attitude than organizational rationale, we believed this study might be important for those contemplating expansion of PA or NP roles. We hypothesized that patients could be satisfied with their care regardless of the type of provider delivering the care.

Methods

Research setting

The setting for the study was the Northwest Division of Kaiser Permanente (KPNW). KPNW is a prepaid, group-practice HMO which provides integrated, comprehensive inpatient and outpatient care for an enrolled population of 400,000 members, including Medicaid recipients, and is largely located in the Portland, Oregon, and Vancouver, Washington, metropolitan areas. The enrolled population is representative of the area population in sociodemographic characteristics such as gender, age, and ethnic and racial composition.

KPNW maintains one hospital and 20 ambulatory care medical offices. Each hospital and medical office facility has an outpatient pharmacy, laboratory, and imaging service. The KPNW physician group employs 550 physicians, 75 physician assistants, 75 nurse practitioners, and 10 nurse midwives.

Study design

This is a secondary analysis of the ongoing Art of Medicine Survey. The survey is an 8-item questionnaire (Table 1) mailed to patients who saw a provider in a KPNW medical office in any of five departments (internal medicine, family practice, pediatrics, obstetrics and gynecology, orthopedics) during 1995 or during the first half of 1996. Patients who saw more than one provider in one day were excluded from the sample. Visits to anesthesiologists, emergency physicians, and radiologists were not included. Questionnaires were randomly mailed to patients whose appointments were entered on the daily schedule. Typically, one to four patients per working day were contacted, and the return rate averaged about 40%.

Respondents were asked to rate the most recent visit by using a line score of 1 to 9. All line scores were converted into a percentage score between 1 and 100. Survey results were based on about 100 completed questionnaires for each provider. The scores were reported as a percentage of the highest possible score. In making comparisons, a difference of 3 percentage points was considered notable. The eight questions were scored individually from 1 to 9 and were reported as individual scores in percentage points up to 100%. The eighth question provided an overall satisfaction score. Beneath the questions was an invitation to the member to comment. Written comments with the numeric results were distributed to the clinician. To encourage candor, responses were anonymous.

All questions were chosen on the basis of strong statistical correlation with overall satisfaction. Comparison of pilot efforts with an expanded list of 18 questions showed that correlation did not change when the list was pared to 7 questions.

<table>
<thead>
<tr>
<th>Department of Provider</th>
<th>Average Number of Questionnaires Returned</th>
<th>Mean Difference in Questionnaire Scores (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Medicine</td>
<td>90 By Patients Seeing PA or NP</td>
<td>-1.000</td>
</tr>
<tr>
<td>Family Practice</td>
<td>90 By Patients Seeing Physician</td>
<td>-2.146</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>83 By Patients Seeing Physician</td>
<td>2.000</td>
</tr>
<tr>
<td>Obstetrics-Gynecology</td>
<td>73 By Patients Seeing Physician</td>
<td>1.000</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>79 By Patients Seeing Physician</td>
<td>-1.000</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>0.638</td>
</tr>
</tbody>
</table>

PA or NP = physician assistant or nurse practitioner; MD or DO = medical doctor or osteopath. *Values expressed as mean difference confidence interval; comparisons between providers are based on paired t tests, p < .05.
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Results

Analysis based on data from the Art of Medicine survey supports the finding that patients are satisfied with their care regardless of type of practitioner delivering the care. First, when an 8-item patient-reported measure of clinician style of encounter was used, we found no statistically significant differences between scores for physicians and for nonphysicians when combined for statistical purposes (Table 2). This observation was supported when provider practice was differentiated by specialty.

Second, no statistically significant differences were seen among the primary care specialties (Figures 1 through 5).

Discussion

After amassing five years of experience and reviewing over 30,000 returned patient surveys, we found this instrument to be a valid and reliable indicator of quality of interpersonal care. In other similar studies, both in this health plan and nationally, these observations did not seem to differ when age and gender were examined. As part of the much-celebrated Medical Outcomes Study, Kaplan and colleagues found that physicians who scored the highest in encouraging patients to participate in their care retained the greatest number of patients. Conversely, among patients of physicians who were rated in the lowest quartile of participation, one third of patients changed physicians the next year. Higher scores were directly associated with greater patient satisfaction. Kaplan and colleagues observed that lower practice volume, primary care training, and satisfaction with personal autonomy were all associated with higher participatory decision-making style ratings. Physicians in busy, high-volume practices, regardless of type of practice organization, were rated as less participatory than those in lower-volume practices.

These observations are not new and do not seem to vary by specialty. Rubin and colleagues examined outpatient visits in different practice settings and among a variety of specialties. They concluded that, regardless of the type of practice (solo, single-specialty or multispecialty group, fee-for-service, or prepaid payment arrangement), physicians with patient satisfaction visit ratings in the lowest 20% were nearly four times as likely to experience patients leaving within six months than physicians in the highest 20th percentile. Patient ratings predict what proportion of patients, on average, will probably leave their physicians in the next several months.

Physician assistants and nurse practitioners were introduced into the United States health workforce in 1967 and into HMOs in 1970. Patient acceptance and satisfaction studies were some of the earliest survey work done on these providers. These studies consistently showed that, compared with physicians, they function at comparable levels, use no more health care services, and are accepted by patients at a comparable level.

Some argue that differences in expectations may exist between organized systems and traditional indemnity practices, especially among those of higher economic status, who may have higher expectations of care. Weinerman’s view is that “the physician in managed care accepts the role of analytic and detached scientist—particularly when reinforced by the colleague-oriented professionalism of the medical group. The patient, on the other hand, alienated in an impersonal society, threatened by illness, confused by the health center complex, seeks personal involvement and reassurance from his or her doctor.”

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These assumptions are not generally supported by research. Most studies show that people are generally satisfied with their health plan or provider, regardless of plan or type of provider.\textsuperscript{4,6,9,12}

Patient perception of care seems to transcend interpersonal provider style, and remarkable similarity exists in care as perceived by patients of PAs, NPs, CNMs, and physicians when measured at the same time in the same setting. Care seems to be valued highly by patients, and quality of interpersonal care can not only be measured but also has outcome implications. This observation is borne out by this survey and supports work done both in this setting and elsewhere. From a membership standpoint, the policy decision to include PAs and NPs in primary care and in certain subspecialties seems to be sound.

Cost-containment strategies were ongoing in this setting during this study and did not have much impact. The results of each of the three phases of the study were higher overall when compared with the results of the study done during the prior six months. During the entire study period, several fiscal restraints were implemented which tended to increase volume for most providers.

Although a study of this magnitude has credibility, limitations must be addressed. Large, mature HMOs such as KPNW have members spanning three or more generations. In many instances, these members have had limited experience outside this health plan with which to compare providers who might treat them differently. As Freeborn and Pope point out, “In fee-for-practice settings, physicians depend on attracting enough members to maintain a viable practice. Under these circumstances, physicians are less subject to influence by colleagues but more responsive to patients’ wishes (even though the patients’ requests may not always make sense or be justifiable from a purely technical perspective).”\textsuperscript{93}

Because of anonymity of the responders, social class and age are excluded from this study. Work done at the Kaiser Permanente Center for Health Research suggests that satisfaction with care is higher in the middle and upper-middle social classes, in persons making frequent visits, in those in better health, and in older persons.

The method of continuous sampling until about 100 questionnaires have been returned is a technique which differs from the method used in the ongoing Current Membership Survey. Rate of return using the Art of Medicine survey averaged about 40%, whereas the Current Membership Survey return rate consistently averaged over 70%. Differences between the two techniques suggest that members who tend to be satisfied with care are more likely to return a survey examining that care. Studies of observed physician behavior are needed to overcome the “halo effect”—the belief of some patients that their physician is above reproach.

Finally, it is our experience that some patients perceive PAs and NPs as somewhat indistinguishable from physicians. This perception may persist in spite of combined efforts of support staff and providers alike to differentiate between physicians, PAs, and NPs. At recall, the differences may tend to blur.

In summary, our findings suggest that patient satisfaction with care appears to depend on the communication skills and style of the provider, and not on the type of provider. Policies to incorporate PAs and NPs in health care seem to be justified. Use of these providers deserves further exploration as do the out-
comes of care by various types of providers and the reasons why patients value and why providers choose certain style of patient management. ❖

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References:

"A strategy is generally based on an organizational skill that, in turn, is based on people."
David A. Aaker, Strategic Market Management
I am a new Physical Medicine & Rehabilitation physician at Kaiser Permanente in San Diego. I recently finished my residency in Detroit, Michigan at Wayne State University. I thought that I would share a story of my last day in residency.

A rehabilitation moment happened to me on Friday, my last day at Rehab. I was walking up the stairway at the Rehabilitation Institute on a very busy day. One of those days when you want everyone to get out of your way because you have so many important things to do. I had a lot on my mind as I ran up the stairs but not enough to stop me from noticing a father and his four-year-old daughter. She was a pretty girl with a pink striped dress with the obligatory minor amount of food stains that one would expect to see on a child who likes to visit carnivals and the such. However, this girl was special. She had a prosthetic right arm from her elbow down. I don’t know how she lost her arm, possibly trauma, possibly a birth defect. All I could see was that where bone and muscle once was had been replaced by plastic and gears. Modern science has really failed to craft a cosmetic and functional upper extremity prostheses. This one was clearly functional with its electrically controlled claw and beige flesh tone. Some prosthetist must be very proud of this creation. However, the aesthetics left a lot to be desired.

I knew that this young girl was coming from the second-floor outpatient rehabilitation unit. She was learning how to use her man-made substitute for what God had given and ultimately taken away from her. I stopped and thought for a moment, a thought that a rehabilitation physician might be more comfortable thinking about. This little girl will have little disability throughout her life. She will be able to take care of herself; however she would never be able to do things that are not rated on any contrived disability scale. She will never compete in a gymnastics event nor climb the face of Half-Dome in Yosemite. Not things that everyone would necessarily want to do, but she will never have the option. More importantly, I thought of how this girl will grow up with a socially induced impairment. Children can be very cruel to those who are different. Even more disheartening will be the social issues that this precious girl will have to endure. There will be the silence and nonrecognition delivered by the American public. We tend to see right past handicapped people in hope of avoiding eye contact. We are embarrassed in our lack of understanding and concern. I looked straight at the girl and told her how beautiful she was. How many fewer times will she hear this in life compared with her peers? She acknowledged my statement and continued walking down the stairs. One flight up I heard the girl say to her father, “That was a very nice man, daddy.” After hearing that, I realized what physical medicine and rehabilitation has given to me. The ability to see disabled people as whole, and a better understanding of the human condition. ✤
**Gestation**

Raindrops unaware of jealousy,
untouched naiveté
feels the moist blush of the current

that engulfs me alone
as I wander in lost perceptions
to mime without an audience
with cupped hands about my face
unable to hide
in this mysterious ether that blankets
my nakedness.

I dance the waltz of the flowers unannounced
then curl into a harmony of dual solitude

satisfied that love
lies in the instincts of a salmon.

I grow in a tick, my nine month itch
has no subjects in this kingdom,
bored I play with life’s cord,
kick my blood — remember nothing

until she tires of me, then squeezes, squeezes, squeezes me
as a blind lemon through darkness into drops of light
to awaken my soul for the first time,

a morning glory on the first stretch of sunlight.

To taste my marrow I delay my scream until
I grip the freeze of loneliness,
open and close my eyes.

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**Losin’ Control of the Reins**

(song lyrics)

He used to sit tall in the saddle.
Now he sits in an old rockin’ chair.
While the kids fight a cowboy and Indian battle,
Grandpa just sits and stares.
He used to ride ‘em and rope ‘em.
He could wrestle a steer with his hands.
Now the doc says, “No drinkin’ or smokin’.
Better get all the rest that you can.”

He’s losin’ control of the reins,
Saddled with old aches and pains.
I wish that you could have seen him back when
Cowboys all called him a man among men.
No horse was too tough to tame.
Times were rough, but he’d never complain.
And now faded memories are all that remain.
He’s losin’ control of the reins.

This mornin’, we all sat in silence
When the doc came to see him again.
He said, “His heart’s given out.
Your pa’s livin’ out his last days.
I just can’t tell you when.”

Now he sits on the porch in the twilight.
He pats his old dog on the head.
And I say, “Daddy, it’s night time.
I guess it’s high time
We get this old cowboy to bed.”

He’s losin’ control of the reins,
Saddled with old aches and pains.
I wish that you could have seen him back when
Cowboys all called him a man among men.
No horse was too tough to tame.
Times were rough, but he’d never complain.
And now faded memories are all that remain.
He’s losin’ control of the reins.

It’s natural, I know
But it’s sad just the same to see him
Losin’ control of the reins.

---

**On Growing Old**

Willow tree, empty nest
laid
naked by Fall
color blind against the sky
faint whispers
listen
the wind seems colder now.

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They All Know

We call it somewhat crassly “peek and shriek.” Each of us who have had the privilege of opening the body’s cavities have, at some time or other; sooner or later, been victim of the foul surprise: cancer everywhere and nothing to do about it. The shriek is a silent one, more of an “oh shit” sans exclamation mark than a cry of terror; it is for the other, the patient, that those too-numerous-to-count, hard white blobs of flesh hold significance: the significance of one’s mortality, all bold and ready, all cold and patient and waiting; but not for long. We spend time treading water, pushing aside loop after loop of intestine swollen by the cruel, malignant trick, delaying the inevitable decision to close the incision and quietly retreat. The room falls silent. Some comment is made regarding the patient’s age: “how terrible” if young, “well, at least he’s eighty” if old, as if the accumulation of years justifies the insult of death.

One or another of the operating team promises to get that colonoscopy at an early age, or the long-delayed mammogram in the hope of forestalling their own “peek and shriek” some years hence. Each turns inwardly to the thought of those loving and loved; gratitude mixes with the gravity of the moment, and we each celebrate our aliveness, our seeming wholeness. As the minutes slip by and the case draws to its close, I rehearse my speech in silence. I curse the job that at times brings me such joy, at other times such agonizing moments as these, moments for which no Jordan-esque salary would be enough. I usually stay until the bitter end, often applying the dressing, half to delay the coming conversation, half to reconcile my impotence with the reality of the magnitude of my foe.

Finally it’s over, and I rip my gown and gloves away, thanking my team who scurry about, cleaning the gore I’ve left behind; cleansing the room to cleanse their souls, moving quickly to the next, almost certainly happier case. I huddle with the chart and telephone, writing and dictating the mundanities that make up the medical record, a document which, for all its sterile language remains the most consistently dramatic of all written testimonies: the story of the beginning of a death.

I can delay it no more. A fifty-foot walk becomes a morose marathon as my brain buzzes to create the patina of professionalism: the firm confidence and quiet reassuring that I alone know are platitudes, but to his family are the threads of hope in a life’s fabric come unwoven. I’ll never get over how stupidly I always begin these reports. The half smile I wear can fool no one, but I can’t make it go away. “Everything went well; he’s fine,” I always begin. The complete and bald lie that “he’s fine” is unbetrayed by my tone in those first words. Their eyes flash for a moment, hands clutching arms, and the first tears, those of relief begin to swell in their eyes.

“But I’m afraid . . .” Afraid? Afraid of what? What a silly figure of speech! My fear is the reality of mortality. What is that fear compared to theirs when I finish my sentence, “… the news isn’t good.” In that instant I can only wish that I had chosen a profession where failure is met in some other way; where inability didn’t cost a life. I usually just wish I were high on Haleakala’s shoulders, breathing the thin, cold air that blows so hard across the home of my God. The arm clutched in reassurance seconds ago is released to its own devices as almost every hand reaches to cover a mouth opened in a gasp, a gasp of angry disbelief, and bitter anguish. The description of the findings follows, euphemized, painted in pastel instead of blood, purposely sanitized by my jargon to leave that glimmer of hope where I know only hopelessness is real. They always say, “But you took it out, didn’t you?” as if the cancer were a weed to be pulled. Its words I stumble over yet again as I try to explain the futility of “getting it out.” I wish they could see the cancer: the countless tumors that everywhere bulge and glisten, almost smiling as they cover the surface of his guts. I want them to know in their hearts as I do that it simply can’t be done, that I can’t “get it all.”

I rely on my time-tested deception: “It would kill him to take it all out,” I say with a set jaw and a straight face, knowing full well that it’s a lie, but also knowing that these words seem to convey the truth—that we have met our match. I offer them reassurances, retreating to the safety of statistics to leave that glimmer of hope that I know doesn’t exist but believe must never be extinguished. We briefly discuss further treatment, me knowing it won’t work, them certain it will. And then, with little more, it’s over.

We both don’t want it to end. I feel better having broken the news, having finished the first dreaded task. They are comforted by my presence, by the gaudy green of my scrubs, by the bleached white of my coat, and by the ever-increasing streaks of gray in my hair. I don’t pretend to understand why this is so, but I’ve felt it time and again: their silently asking me to stay, as if I’ll change my mind, change my story, change the truth. I’ll often bend to hug his wife, or place my left hand on her husband’s shoulder as I shake his right. “I’ll take good care of him,” I vow, as if that will somehow make everything all right, as if I can make up for the failing. I turn to take on the morose marathon in reverse; it’s only slightly
easier in this direction. I always see them in the corner of my eye as I return to the sanctuary of my operating room. Always they're sobbing, hugging, and sobbing. I always sigh, as if this deep breath will clear my heart as well as my lungs, and with a shake of my head close the door behind me.

Recovery from anesthesia works in two directions in these cases. The patient uses the time to struggle for consciousness, reawakening in a world of blinding pain, cold and harsh light. I use the time to collect myself, remembering that the task of informing the patient will be mine as well. With luck, the case is late in the day. The patient retires to the bliss that is morphine. I retire to the laughter of my children, the arms of my wife, and a deep, forgetful sleep.

The next morning again brings pain. Post-op day one is a blizzard of nausea and morphine to the man who hours ago stood smiling and confident, joking with me that he felt lucky to have a young surgeon, as I must still remember what they taught me.

His wife is at the bedside as I make my rounds. She’s holding his hand as if this were his deathbed, scarcely concealing her terror at being left alone after thirty years of marriage. He is, thankfully, comfortably numb. The narcotics are working their subtle magic. I walk in, erect and seemingly proud, extending my hand in greeting, not noticing that it is shaking. "Good morning. You did good yesterday," is the attempt at a pleasant greeting. His eyes appear sunken, the pupils tiny black dots in a sea of green.

"So how d’ya do, doc?" he asks, wincing with the effort. It becomes clear that she has told him nothing of our conversation yesterday. She’s embarrassed by this, of course, but I’ve come to expect little else. "I did fine and so did you," I reply, clearly dodging the point.

"Did ya get it all?" he asks with a wink.

"Well I’m afraid ..." there’s that ‘afraid’ again, as if I had something to fear. "... it’s pretty bad." I curse the God that gave me this language, this job, this inability to forestall mortality. I want so many better words. But the patient will have none of it.

"Hey, you did the best you could." He dismisses me with a wave of his hand. And I, me, the surgeon, the healer, the doctor, quickly accept this endorsement; accept it because it comforts me, because it forgives me.

"Yes, I did," I mutter somewhat obsequiously. I beat a hasty retreat. Sometime later that day, I pass by his room again. He’s brushing his teeth despite the fact that he’s attached to two towers of equipment and tubes; brushing his teeth because it gives him the dignity of being human in this place where dignity and modesty are the earliest casualties.

I come upon him as he’s seated in front of the mirror, comfortable in his morphine-induced euphoria. "You knew, didn’t you?" I asked, safe in the knowledge that years in this business will give.

"Yeah, I guess I did," he replies without a trace of regret.

"How long have you been sick?" I ask, hoping that his self-induced delay will somehow clear me of all guilt in the matter.

"A while," he says, still brushing.

"Why didn’t you come in sooner?" I said.

"I just knew it was my time, and I didn’t want to worry Phyllis," he offers unapologetically. I touch him on the shoulder, feeling the strength that wells up inside of him.

"Thanks doc," he says.

"For what," I reply in surprise, "I didn’t do anything."

"You told her," he says, "I couldn’t."

"So you knew."

"Yeah, I knew."

He knew. They all know. By God, they all just know.
The world of health care looks very different when you are spending $1 billion per year purchasing it. General Electric annually watches that sum of money flow out to health plans and from there to doctors, hospitals, nurses and others who serve our 220,000 employees and their families. The GE business that I work for, Power Systems, purchases about $30 million worth of care from Kaiser Permanente in Upstate New York.

I thought it would be valuable to share my perspectives on health care purchasing with the Kaiser Permanente health professionals to give them a fresh look into a purchaser's thinking.

Global Markets
It is often difficult to appreciate the impact of local health care on global sales competition. Perhaps the easiest way of thinking about it is to be aware that health care quality and costs directly affect GE's ability to compete successfully in Europe, Asia, and elsewhere. If the cost inputs associated with health care are inordinately high, our products will be too expensive and will not sell. If our products fail to meet customers' specifications, that has a direct impact on our labor needs.

Hence, the U.S. health care industry (which is again experiencing significant cost growth) can directly affect sales and jobs. What U.S. businesses seek is the most efficient care we can buy. Providers need to "spend" money as if it were their own.

If health care quality is poor, costs go up, driven by extra tests and treatments. These are the direct costs. If patients have prolonged hospitalizations and days of disability, it impacts GE's efficiency—an indirect cost. Hence, poor quality care hurts us in the global market as well. If our productivity is low, we are at a competitive disadvantage. It is clear that Kaiser Permanente can play an important role in keeping GE a globally competitive company by helping to maintain a healthy and productive work force.

Value
The concept of value is familiar to everyone who buys an appliance, a car, or clothing. Value is derived by dividing quality by price. It is the value equation that drives most Americans to buy cars like the Toyota Camry or Ford Taurus. Our perception is: excellent quality and attractive price—hence high value. Businesses cannot view either quality or price in isolation because the concepts are inextricably connected in the notion of value. To purchase low-quality health care at a high price would be a low-value transaction. Value is GE's present and future focus in health care.

An important lesson that has been learned by American businesses has to do with another relation between cost and quality. In general, as quality improved in cars, computers, and VCRs, production costs decreased and prices fell pleasantly. The falling prices reflect the decreased costs associated with producing quality products. After some study, many health care quality experts believe that health care costs also will fall as quality improves. This suggests that companies like GE can and should expect a dramatic improvement in value from health care in the future. This value improvement will be driven by the price reductions passed on to us as costs go down. Value, however, cannot improve unless progressive plans like Kaiser Permanente focus intensely on quality.

Quality
GE is currently in the midst of a Quality Revolution. Two years ago we launched a program entitled Six Sigma. Six Sigma is a quality methodology based on the notion that it is possible to reduce defects in processes and products to less than 3.4 per million operations. Implementation is based on measurement, analysis, improvement, and control strategies applied to every key process in our business. In Six Sigma, the customer is king. Every quality improvement fell pleasantly. The falling prices reflect the decreased costs associated with producing quality products. After some study, many health care quality experts believe that health care costs also will fall as quality improves. This suggests that companies like GE can and should expect a dramatic improvement in value from health care in the future. This value improvement will be driven by the price reductions passed on to us as costs go down. Value, however, cannot improve unless progressive plans like Kaiser Permanente focus intensely on quality.

What GE Employees and Families Think About Their Health Care 1996

What U.S. businesses seek is the most efficient care we can buy. Providers need to 'spend' money as if it were their own.
effort begins by asking customers which things are critical to their perception of quality. Once we know the customers' desires, we look at the processes that impact the customer and identify opportunities to make quality breakthroughs for them.

The Six Sigma system has provided excellent quality improvement for Motorola, Texas Instruments, and Allied Signal. Results at GE to date are very promising. The Health Care Team at GE is using the Six Sigma methods to improve the quality of service to our clients. Our efforts, built on solid survey data, brought one immediate “ah ha!” We learned that GE employees and families were most concerned about delivery and service issues and were generally satisfied with their care. The graph on the preceding page shows these results.

Based on our customers' concerns and our quality opportunities, we are joining forces with our health plans, including Kaiser Permanente, to build projects to dramatically improve services and delivery to our customers.

What our customers have told us in the survey is that service in health care is currently poor. This poor quality is not news to any of us who have waited on the phone or in front of a receptionist trying to get an appointment—or a prescription. From a business perspective, it is unthinkable to pay $1,200 for a hospital room and be unable to get a call light answered immediately! The opportunity is great and must involve every member of the health care team. Doctors can and should be powerful exemplars of great customer service.

Variation

Another concern, very closely related to quality, is variation. Variation is the enemy of quality. As employers like GE look across regions of the country, they see wild variation in many health services—hysterectomies, C-sections, radical prostatectomies and coronary angioplasties, to name a few. If rates vary by three times, employers want to know: what is the correct rate? Great variation suggests we are getting low value in some areas or high value elsewhere. At present, it is impossible to tell which is which. The skilled providers at Kaiser Permanente must work to drive out variation and address a more standard approach to health care problems—these may be critical pathways or treatment guidelines. What they are called is unimportant; the outcome we seek is high quality care that is free of undue variation.

Compassion

Finally, the pressure on the health care system is great and getting greater. In spite of this in the end, all care is person to person, people touching people. GE puts a high premium on the compassion and caring given our employees and their families. Our people are the most important asset we have. Your kind, compassionate, deliberate care of these precious resources is critical to quality for all of GE.

GE is proud to partner with Kaiser Permanente. We look forward to breaking new ground in value and quality with all the Kaiser Permanente teams.

“You think because you understand one you must understand two, because one and one makes two. But you must also understand and.”

Ancient Sufi Teaching
School Connections: Linking Low-Income Children to Affordable Health Care

In January 1997 Kaiser Permanente’s Rocky Mountain Division kicked off a two-year pilot program offering a child-only health plan for low-income children in Metro Denver. This innovative plan costs families $3 per month per child (with a maximum of $9 per family) and is the first time in the nation a health maintenance organization is partnering with school-based health centers to give children comprehensive health care.

Angela Baker didn’t know where to get affordable health insurance for her third-grade daughter in Denver. As a single mother, she worked hard, but finances were tight.

“It’s very frightening,” she says. “It’s stressful being on your own and trying to find proper health care. It was a struggle to even buy the store brand of aspirin.”

Her answer is School Connections.

This new, innovative dues-subsidy program partners Kaiser Permanente’s Rocky Mountain Division with school-based health centers (SBHCs) to give school-aged children in Denver comprehensive health care.

As an enrollee in School Connections, 9-year-old Adiamond Baker receives most of her primary care from her SBHC located at her school. Nurse practitioners, RNs, and physician assistants staff the centers and provide on-site primary care services such as preventive care, immunizations, care for minor illnesses and injuries, chronic-disease monitoring and education, and some mental health and chemical dependency services. Typically, there is a physician on call, providing consultation as needed.

But Adiamond’s ticket to comprehensive care is her very own Kaiser Permanente identification card. She can now walk into any of Kaiser Permanente’s medical offices in the Denver metropolitan area and for a $5 copayment receive primary care, specialty care, laboratory, emergency services, x-ray and mental health benefits as needed. Hospitalization and prescriptions are free.

It costs her mother $3 a month in dues.

“I am so grateful for everyone who’s collaborated to make this happen because I desperately need some health care for my daughter,” says Angela Baker. “I’m very grateful.”

School Connections is a two-year pilot program that has room for 1,300 children in the Denver metropolitan area. Children qualify if they are enrolled in one of 20 schools with SBHCs and if their families fall within the financial needs guidelines. For the Bakers, that means making less than $19,166 a year.

School Connections is a great idea, but will it work for you? This article addresses what school-based health centers are, how the idea came about, the physician perspective, and what steps to consider if you want to replicate this program.

Background

What are school-based health centers?

School-based health centers are a relatively new health care delivery model. In 1987, the Robert Wood Johnson Foundation awarded grants to 18 community institutions across the country to establish stand-alone centers at schools. Their mission—provide underserved students with primary care services for free or at minimal cost because healthy students are more likely to stay in school and become healthy, productive adults. Today, it’s estimated that there are more than 900 SBHCs operating in 43 states and in the District of Columbia.

Each SBHC has a partner from the medical community who provides staffing and equipment, but funding is a big problem. Resources are seldom adequate, and finding sustainable, predictable support is critical to their survival. Often, the centers rely on a variety of sources, including private foundations, government grants, and community agencies.

Tackling the Growing Problem of the Uninsured

More than 42 million Americans were without health insurance in 1996, according to the U.S. Department of Health and Human Services. In Colorado alone, more than 540,000 people lack insurance, including an estimated 150,000 children and teenagers.

While the ranks of the medically indigent continue to grow, the resources necessary to combat the problem decline. However, Kaiser Permanente helps some families to fill the gap with our dues-subsidy programs that have been part of our social mission for years.

The Rocky Mountain Division’s largest dues-subsidy program is called Connections. It provides health benefits to 1,700 low-income uninsured or significantly underinsured members at greatly reduced rates—Kaiser Permanente waives 80-95 percent of the normal dues for up to two years.

Connections is designed to make health insurance available to people while they are going through rough financial times until they get back on their economic feet. This highly successful program began in 1991 and has grown steadily in the last four years, today serving about 1,600 people annually. The Rocky Mountain Division’s annual cost for Connections is about $2 million.
The dues-subsidy program gets another fiscal boost from physicians and staff. Every year through automatic payroll deductions, they give an additional $100,000 to do their part in tackling the problem.

Karen Shields, coordinator of both Connections and School Connections programs, says about 60 percent of the physician and staff contribution is used to help more families to buy health care coverage. The remaining funds are used to help other financially strapped members to waive copayments, or buy durable medical equipment, pharmaceuticals, and other services not covered by their regular benefits.

Shields says the program formalizes what physicians and staff had been doing on their own for years. "We often would hear stories about them paying out of their own pocket to help these people get proper health care," she says. "Connections allows them to make a personal impact on the problems of the uninsured and the underinsured and give back to the community in a formal way."

Learning From Our Past Experiences
After six years of watching the Connections program develop, Community Medicine Director Maureen Hanrahan noticed a few trends that would eventually lead to School Connections.

First, the cost of providing care to these populations was rising significantly, about five percent annually. Currently, the program costs $183.93 per member/month.

"We found we could not afford to cover the same number of people from year to year," Hanrahan says. "Our suspicion was that the cost of the program was going up because of the demands of the high-need patients in that population, who were most likely adults."

The second trend was about children, who make up an estimated 40 percent of Connections members. Families often called with requests to include only their children in Connections because the parent or parents were covered through their employers' plan but still could not afford the additional cost of adding dependent children to the employer-based plan or because the employer did not offer dependent coverage.

"It occurred to me as I was looking at the uninsured population that there was a pocket of need that really shouldn't be that expensive—the school-aged child," Hanrahan explains. "I started reading about programs and exploring actuarial data that had isolated the cost of providing care for these kids and found that we could serve about three to four kids for every person we served in Connections."

The next steps?
"We wanted to try a creative model that involves a child product and price it that way. Then we began looking for a unique delivery system," Hanrahan remembers.

The ABCs of a Positive Relationship
Kaiser Permanente's relationship with school-based health centers began slowly in 1990. Physicians and staff had limited participation on their boards, and advisory groups and the Rocky Mountain Division gave charitable dollars to at least two sites.

But in 1995, Kaiser Permanente funded a study in collaboration with Denver Public Schools that would prove to be a turning point in the relationship.

The study, currently in the process of publication, compared utilization rates of Kaiser Permanente teenagers who had SBHC access with a control group of Kaiser Permanente teenagers without SBHC access over a three-year period. It compared utilization of primary care, specialty care, urgent/emergency care, mental health and chemical dependency treatment, and preventive services as well as common diagnoses and risk assessment. The study helped the Rocky Mountain Division to anticipate the utilization patterns and needs of teenagers using SBHCs and to plan how a future relationship between Kaiser Permanente and the centers may increase risk assessment and preventive care while decreasing potential after-hours/urgent care utilization.

There was another subtle result of the study, one that would prove critical later. A working relationship with the schools was evolving slowly—trust and understanding of each other's goals, systems, quality controls, and management styles.

Making The Connection
With a background in nursing and education, Hanrahan drew on her own personal experience and insight into SBHCs to help the dues-subsidy team to develop School Connections. Prior to joining Kaiser Permanente in 1985, she helped to establish one of the first SBHCs in the Denver metropolitan area. Hanrahan and the team had been researching ideas to put the student health plan into action when they came up with a stroke of brilliance—could a marriage between Kaiser Permanente and the SBHCs work?

The idea seemed simple. By using the SBHCs as additional primary care providers, they would act as agents to identify children of the working poor without health insurance and those children whose families made too much money to qualify for Medicaid yet couldn't afford to buy their own health insurance. Families could also receive primary care services through Kaiser Permanente for a $5 copayment if they so chose. The plan, however, would be to encourage children to utilize the SBHCs for primary care services as usual and to keep the program costs

“I am so grateful for everyone who’s collaborated to make this happen because I desperately need some health care for my daughter,” says Angela Baker. “I’m very grateful.”
as low as possible. If it worked, Kaiser Permanente would be the first health maintenance organization in the nation to incorporate the SBHCs into a plan to give deserving children and teenagers the comprehensive health care they needed at an affordable price.

The pieces of the puzzle were all there—our working knowledge of SBHCs, the study showing the utilization rates of teenaged members enrolled at SBHCs, and the knowledge that a student health plan would be cost effective.

But the idea would have to pass a critical test to be successfully implemented. For it to work, physicians would have to buy into the idea.

The Challenges

Dr. Harvey Bograd, co-manager of the dues-subsidy programs, says the medical group’s initial reactions were positive because the program would focus on uninsured kids and because it would tie in the educational environment, as well.

However, on closer examination there were other issues to consider. With 20 different SBHCs, three school districts, three different medical staffs, and now Kaiser Permanente—all active partners in the relationship—several issues would have to be worked out. Communication. Quality assurance. Confidentiality. Staffing. And leadership. Who would be the boss?

It would require a true collaboration between various entities with differing corporate cultures and processes.

Coordinating the flow of information outside the Kaiser Permanente system is itself a problem. "Continuity of care is important to physicians," Bograd explains. "There was some concern our physicians would lose track of these kids if they were seen outside the system. The real challenge is to make sure our providers know these children are their patients and track them, even though they are receiving services off-site."

The program is still in its infancy and many of the problems are handled as they come up, so it’s still too soon to clearly define and elaborate on all the issues.

Hanrahan says the key to working out the answers for everyone comes back to the foundation of the relationship — trust and understanding. "Something like this doesn’t happen overnight," she says. "It takes a long time to establish a solid enough relationship to work through all the daily problems."

After a year of discussion, negotiation and planning, School Connections accepted Adiamond Baker as its first member on January 1, 1997.

A Physician’s Perspective

Dr. Stefan Mokrohisky, pediatrician, is Kaiser Permanente’s clinical liaison with the SBHCs. Mokrohisky spends two to four hours a week serving as an on-call consultant and acting as the sounding board for the SBHC’s providers in order to help new School Connections members understand and use the entire Kaiser Permanente system effectively.

Mokrohisky says within the first week of enrollment, the need for the program was obvious. He tells of two patients who had not had any consistent care before School Connections. One was a first-grader who had been diagnosed with insulin-dependent diabetes mellitus at three years of age and had not been on a regular basis. The mother also had diabetes and had been giving the child her own insulin because she couldn’t afford a separate prescription. Blood and urine testing was sporadic.

As if the situation wasn’t bad enough, the school was reluctant to accept the mother’s directions for the girl’s emergency care because school regulations required a physician’s involvement. Whenever the girl became ill, they went to the emergency department, which further disrupted her school attendance. This Catch-22 situation is not unusual for many uninsured families. Today, the child is getting the consistent care she needs, and her family is grateful for the attention.

Mokrohisky tells of another girl who desperately needed care. This 9-year-old had been evaluated for what her mother called “self-confusion.” It turns out, she had had surgery at birth to remove testes from the inguinal canals but had never been seen since for the problem of testicular feminization. She was confused about her identity and had never developed close relationships with anyone.

Although she was raised as a girl, she felt more at home on the playground with boys because of her athletic ability—she was always chosen first when the basketball teams were formed. She was uneasy bathing or taking showers with older girls but wasn’t sure why.

Mokrohisky referred her to an endocrinology specialist and to a mental health therapist and finally, after nine years of confusion—her entire life, in this case—she is coming to terms with her special situation. With a thorough physical examination, genetic investigation, and emotional evaluation, the girl and her mother are receiving support to meet the challenge of this complicated problem.

“We felt we reached her just in time, as the developmental milestone of puberty was on the horizon and hormone therapy was needed,” Mokrohisky says. “What School Connections hopes to add to the Kaiser Permanente genetic code is community-coordinated, cost-worthy care for this special group.”

Reaching school-aged children and teenagers like these two has been difficult. Providers see them as infants for preventive visits but often lose track of them until acute illness or trauma strikes. Even studies of the insured teenaged population indicate an episodic approach to health care and a failure of risk assessment.
programs to identify those in need of intervention. “This may change our entire approach to treating children and teens,” Mokrohisky says. “Instead of requiring families to understand the health care needs of their children in terms of the traditional medical model, we will adapt to fit the school-based developmental stage of each child. It will also help us focus on the school as an essential neighborhood resource.”

The thought is that by tracking their care, Kaiser Permanente should be able to better understand their psychologic and educational developmental needs and more effectively tailor prevention programs to help them to become healthy adults.

Mokrohisky explains, “This will help us understand the connection between health care and the community and how we can make health care more accessible to the community.”

Bograd says School Connections allows the educational piece to be integrated with the biological aspect of health care. “We try to maximize each child’s potential, and this relationship with the schools will help us do that,” he says. “There are all sorts of problems, social and psychological, that these children and teens have. With this model, those issues may be observed and treated more effectively in the school setting because the school staff is there.”

Take a child with attention deficit disorder. A typical child may come in to see a Kaiser Permanente physician with a note from his teacher saying that there are problems with his performance and learning.

“We are interested in discovering if it is advantageous or not to treat ADHD within a school-based health system,” Bograd says. “In this model, mid-level provider staff located on-site at a school will work cooperatively with Permanente physicians located at our medical facilities.”

From Mokrohisky’s perspective, the challenge lies in working with existing community health services to assure high-quality care to avoid duplication of services and to keep essential information on individual patients confidential yet available to those who need it.

A major problem in today’s health care environment is the “churning” of people in and out of various health care delivery systems. As new members come into the Kaiser Permanente system, a great deal of energy is spent gathering and interpreting previous information in order to get a clear understanding of current health needs and future health risks.

The same is true for School Connections children. Each student needs a thorough health assessment to determine current medication needs, specialty referral requirements, level of health risk knowledge, and the need for primary care intervention. Most health care programs have depended on member demand for services. It’s the goal of this new program to provide all necessary health care for a population of students whether the care is first requested or not.

Mokrohisky explains, “In other words, we take the view that many risks to health exist for these students that they may not be aware of or appreciate sufficiently, and our job is to coordinate care for them in such a way that it impacts their entire lives positively.”

How will we know if the program is successful?

“A program like School Connections has a built-in quality measurement tool,” Mokrohisky says. “The overall success of health care for students is their adaptation to and enjoyment of learning in the school environment, as well as their functioning in the family setting. While it’s difficult to predict long-term outcome for young people in terms of career or personal accomplishments in life, it is clearly possible to measure their immediate mastery of academic and personal milestones in school settings.”

But physicians gain more than scientific knowledge by becoming involved with programs like these. “It gives us a sense of participation in the effort to solve the crisis of the uninsured in the country,” Mokrohisky explains. “This problem is increasing in scope and the important experience of a health plan like Kaiser Permanente should be brought to the table in negotiating solutions.”

Bograd says School Connections taps into physicians’ strong sense of social mission.

“Permanente physicians can really accomplish a lot and get personal satisfaction by working in these programs. There is a tremendous pool of talent and a great need for their help.”

Community Impact

School Connections was launched in January 1997 but already has influenced local and state leaders and has refocused debate on the issue of health care for uninsured children. Colorado’s chief executive, Governor Roy Romer, participated in announcing School Connections and mentioned the program in his state-of-the-state message nearly a month later.

Bruce Guemsey, Director of the Colorado Department of Public Health and Environment’s School Based Health Initiative, summed up the activity surrounding the program best when he said, “There has been a tremendous stirring in the community among health plans, public policy makers, and educators since School Connections was announced. Our phones were ringing off the hooks.”

The media covered the announcement extensively, including a segment on Good Morning America and a front page headline and story in the Denver Post, one of the local daily newspapers. Every local television station led with the story or had it in their news-
calls. Calls from media and from others around the country continue to pour in, including a request for information from the US Department of Human Health and Services.

As of March 1, only eight weeks into the program, more than 300 children and teenagers have been accepted into the program. As word spreads about this two-year pilot program, the additional 1,000 available slots will most likely go fast and pave the way for expansion in 1999.

"School Connections will resonate for years to come," Guernsey says. "Bills now in the legislature already have leveraged the thinking of School Connections."

Colorado State Senator Sally Hopper puts it another way: "I'm especially excited about School Connections because it's a first step toward meeting a critical need in our state."

Shields sees the true benefit of the program reflected daily in the many relieved faces and voices of parents like Angela Baker:

"Parents are very excited about the opportunity to finally have access to affordable, consistent health care coverage for their child," she says. "I hear over and over again how relieved they are now that they can finally afford to get glasses for their kids. It's very exciting to be part of an effort to make a difference with these families." ✤

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"Parents are very excited about the opportunity to finally have access to affordable, consistent health care coverage for their child."
Kaiser Permanente has a long history of innovative approaches to the provision of care for members with urgent or emergent conditions. For example, the Program developed and implemented telephonic nurse advice services long before the term “demand management” was popularized. This case study describes how an innovative Permanente practice has influenced the development of public policy and how, in turn, public policy is affecting our practices in the area of emergency care.

The EPR/CCT Program

In 1989, in order to address rapidly escalating costs for nonplan emergency services and out-of-plan hospital admissions, Southern California Permanente emergency physician Jeff Selevan, MD designed and piloted the Emergency Prospective Review/Critical Care Transport (EPR/CCT) Program in San Diego, California. Due to the success of the pilot, the program was centralized and expanded to cover the entire Southern California service area; expansion into Northern California is currently being implemented. Variations of the program are also in place in Hawaii and in Colorado. The goal of the program is to bring members back to Kaiser Permanente (or contract) facilities and providers as quickly as possible. This enhances members’ care by repatriating them with their medical home.

The core of the program is 24-hour telephone access to a Kaiser Permanente emergency physician staffing the program. When one of our members is treated at an out-of-plan emergency department, the community physician is able to easily and quickly contact the EPR using an 800 number. The Permanente physician and the community physician review the scope of the needed evaluation and any treatment in the emergency department. The Permanente physician is often able to provide additional medical information by accessing the patient’s electronic medical record. Payment for mutually agreed-upon services is conditionally authorized by the Permanente emergency physician. If the patient is stable for transport back to a Kaiser Permanente facility, arrangements—including critical care transport if indicated—are made. If the patient requires out-of-plan admission, case management is initiated. If the patient is discharged, appropriate follow-up arrangements can be facilitated. Kaiser Permanente plans that have implemented the EPR/CCT have realized substantial cost savings, primarily by avoiding unwarranted admissions and redundant testing in the emergency department.

The Interface of MCOs and Emergency Services

In the last several years, there has been a great deal of adverse publicity surrounding managed care organizations’ handling of emergency services. Emergency physicians were reporting adverse outcomes for managed care members because of real or perceived barriers to emergency medical services.1-3 Most problematic were delays in accessing care because of a requirement to obtain authorization before going to an emergency department and retrospective denial of emergency claims even when initial symptoms could have represented a serious medical condition. A classic example of retrospective denial is the middle-aged man with a history of hypertension who develops chest pain and seeks care in the closest emergency department. After a detailed medical history, ECG, review of the medical record, and consultation with a cardiologist, it is determined the chest pain is not cardiac but rather gastrointestinal in origin. The discharge diagnosis is “heartburn.” The claim is denied because heartburn is not an emergency condition. The emergency department is not reimbursed for services rendered, and the patient is caught in the middle of a battle between the hospital and the health plan.

Emergency physicians have a federal mandate, the Emergency Medical Treatment and Active Labor Act (EMTALA), to screen every patient who presents to an emergency department for an emergency medical condition and to provide treatment up to the point of stabilization. This must be done prior to any determination of the patient’s ability (or their health plan’s willingness) to pay for those services. This creates, in essence, an unfunded federal mandate for hospitals with emergency departments and emergency physicians. Some health plans are reported to have taken advantage of this mandate by refusing prior authorization for emergency services and by later denying reimbursement for the claim. One California HMO is reported to have sent a letter to all of its participating “gatekeeper” physicians advising them not to authorize any emergency department visits because emergency physicians had a legal obligation to evaluate patients anyway.4

Crafting a Solution

In response to these concerns, the American College of Emergency Physicians worked with US Representative Ben Cardin (D-MD) to introduce legisla-
tion addressing some of the most glaring issues, i.e., preauthorization, and retrospective denial. Although this legislation had over 100 cosponsors, it was floundering because of opposition from the managed care industry and big business.

In the spring of 1996, leaders from the American College of Emergency Physicians sat down with emergency physicians and policymakers from Kaiser Permanente. The purpose of this meeting was to determine if there was any common ground in our approaches to emergency services. ACEP leaders described the need to prohibit prior authorization and to eliminate or minimize retrospective denial. They felt that adopting a “prudent layperson” standard for federally mandated emergency services would go a long way toward reducing barriers to appropriate emergency care. This means that health plans would pay claims when patients have symptoms that a prudent or reasonable person would believe could cause a serious impairment to his or her health.

The Permanente physicians at the meeting were concerned that applying this standard could lead to an increase in out-of-plan services provided to our members. They wanted greater coordination between Kaiser Permanente and out-of-plan emergency departments. And they wanted to be able to direct patients who go to nonplan emergency departments with minor conditions to more appropriate settings such as their own doctors’ offices. They noted that there was little communication between community emergency physicians and the patients’ medical home—their health plans. This often resulted in unnecessary or redundant testing in the emergency department and even unwarranted hospital admissions. The lack of coordination was frustrating for patients as well as the clinicians and added to the costs of care without giving any health benefits to the members. Permanente emergency physicians at this meeting were familiar with the EPR/CCT and suggested it could serve as a model of how to best solve the vexing problems related to emergency care.

The result of the discussions between ACEP and Kaiser Permanente was an historic joint statement of principles for supporting federal legislative requirements for health plan coverage of emergency medical services (Table 1). This statement was released to the public on August 19, 1996. Since that time, Kaiser Permanente and ACEP have worked together with Congressman Ben Cardin to capture the principles in legislative language.

**The Access to Emergency Medical Services Act of 1997**

The bill (Table 2) was introduced into the US House of Representatives as the Access to Emergency Medical Services Act of 1997 (HR 815) by Reps. Ben Cardin (D-MD) and Marjoe Roukema (R-NJ) on February 25, 1997. Senators Bob Graham (D-FL), John Chafee (R-RI), Tim Hutchinson (R-AR), and Barbara Mikulski (D-MD) introduced it in the US Senate as S356 on the same day. John Pappas, MD, a Colorado Permanente physician, ably represented Kaiser Permanente at a Washington, DC press conference heralding the introduction.

If enacted without modification, the bill (known as the prudent layperson legislation) will provide substantial protections to patients who experience symp-
The bill would amend the Internal Revenue Code of 1986, the Public Health Service Act, the Employee Retirement Income Security Act of 1974, and Titles XVIII and XIX of the Social Security Act. If enacted, this bill would guarantee that consumers are covered for legitimate emergency department visits. For health plans that offer coverage for emergency services, including the Medicare and Medicaid programs, the bill would require payment for emergency services consistent with the “prudent layperson” standard. Patients would not be required to obtain prior authorization for emergency services. Health plans would be required to cover and pay for emergency care based upon the patient’s initial symptoms, rather than the final diagnosis. The bill also establishes a process in which the emergency department and health plan work together to assure that the patient receives appropriate follow-up care.

Key provisions of the bill:

- Establishes a uniform definition of emergency based upon the “prudent layperson” standard. Health plans would be required to cover emergency services if the patient has symptoms that a prudent layperson, possessing an average knowledge of health and medicine, could reasonably expect to result in serious impairment to the patient’s health. Health plans would not be required to reimburse for services that do not meet the “prudent layperson” standard.

- Plans would be prohibited from requiring, as a condition for coverage, that patients obtain prior authorization from the health plan before seeking emergency care.

- Establishes coverage standards for out-of-plan emergency care to protect patients who, under reasonable circumstances, seek care in an out-of-plan emergency department.

- Allows health plans to establish reasonable cost-sharing differentials for emergency care when a patient chooses an emergency setting over a non-emergency setting, or an out-of-plan emergency setting over an in-plan emergency setting.

- Provides a process for coordination of post-stabilization care. Treating emergency physicians and health plans would be required to make timely communications concerning any medically necessary post-stabilization care identified as a result of a federally required screening examination. Plans, in conjunction with the treating physician, may arrange for an alternative treatment plan that allows the health plan to assume care of the patient after stabilization.

- Health plans would be required to educate their members on emergency care coverage and the appropriate use of emergency medical services, including the use of the 911 system.

- There would be no preemption of state law as long as the state law does not prevent the application of the federal law.

- In general, requirements of the bill would be enforced in the same manner as the requirements of the “Health Insurance Portability and Accountability Act of 1997.”

- Applies to all health plans that offer coverage for emergency care, whether licensed or self-insured, including the Medicare and Medicaid programs. Effective for plan years beginning on or 18 months after the date of enactment.

In order to ensure that medical care for nonemergency conditions identified during screening and stabilization is provided in a coordinated and appropriate manner; the prudent layperson legislation requires emergency departments to contact patients’ health plans within 30 minutes after the EMTALA requirements for screening and stabilization are met. This contact between the health plan and the emergency physician will help assure that the health plan, which is the primary source of the patient’s health care services, is involved in the provision of follow-up care. There is also a requirement that the health plan either deny or approve the request for further testing and treatment within 30 minutes of the time of the emergency department’s phone call. Although there is no requirement that the phone calls be made or received by physicians, only plan physicians can deny disputed requests. These provisions make possible the type of communication essential to optimal management and care of health plan patients in need of emergency services.

**Complying With the Requirements**

Kaiser Permanente Divisions with EPR/CCT programs in place will meet the requirements of the legislation. However, it is important to understand that there are a variety of ways in which to comply with the proposed standards. For example, in the Mid-Atlantic Region of the Central East Division, a nurse responds to calls from community emergency physicians when our members go to their departments. After assessing the situation, the nurse can put the community physicians in touch with the appropriate on-call Permanente physician or....
can dispatch a physician from a contract group to the emergency department. This group of physicians has admitting privileges at many of the area's hospitals and is very familiar with Kaiser Permanente procedures and resources. After assessing our member in the emergency department, the contract physician can admit the patient, repatriate the patient to a plan hospital, or arrange appropriate outpatient care and follow-up. Community Health Plan, a member of the Kaiser Permanente family in the Northeast Division, provides medical care in a largely rural environment. It will be able to comply with the requirements of the Access to Emergency Services Act of 1997 by having its on-call primary care physicians be responsible for responding to calls from community emergency physicians.

Benefits of Federal Standards

By proposing federal standards for coverage of emergency services, Kaiser Permanente and ACEP have taken the first step in alleviating the public's concern about access to and coverage for these critical services. The legislation and programs like the EPR/CCT are win-win for all involved, especially our members. Patients and community physicians benefit by having access to information that expedites, improves, and coordinates care. Patients also benefit by having their proposed treatment discussed with a physician from their health plan who frequently has access to their records and by the assurance that the care provided will be covered. The plan benefits by ensuring that post-stabilization care is appropriate and not unnecessarily intrusive, and by avoiding costs associated with unnecessary testing and unwarranted admissions.

What Happens Next?

Currently, the bill has 119 sponsors in the US House of Representatives and 17 in the Senate. It is garnering significant bipartisan support and has strong support from numerous organizations (Table 3). Our Washington representatives, Dr. Don Parsons (Associate Medical Director for Government Relations) and Richard Froh (Vice President, Government Relations) are meeting with key legislators on a regular basis to educate them about the need for federal standards for coverage of emergency services.

Currently, the American Association of Health Plans has not endorsed the bill. They have, however, developed voluntary standards addressing coverage of emergency services and have said they would remove from membership any plan which failed to meet those standards. Business leaders support the concepts in the legislation but have major reservations about supporting the bill for two reasons: 1) they don't like the idea of legislating a solution to the problem, and 2) this bill would amend ERISA, a long-standing Federal statute that exempts self-funded plans from state regu-

Table 3. Organizations Supporting H.R. 815/S.356

“Access to Emergency Medical Services Act”

| American College of Emergency Physicians | American Academy of Pediatrics |
| American Permanente | American Society of Internal Medicine |
| American Medical Association | American College of Surgeons |
| American Hospital Association | American Association of Neurological Surgeons |
| Federation of American Health Systems | Congress of Neurological Surgeons |
| National Association of Public Hospitals & Health Systems | American Association for the Surgery of Trauma |
| Catholic Health Association | Eastern Association for the Surgery of Trauma |
| Association of American Medical Colleges | American Society of Anesthesiologists |
| VHA Inc. | Emergency Nurses Association |
| National Association of State EMS Directors | Association of Operating Room Nurses |
| Center for Patient Advocacy | Internal Association of Fire Fighters |
| Families USA | American Ambulance Association |
| Public Citizen’s Health Research Group | Association of Air Medical Services |
| Citizen Action | American Osteopathic Association |
| National Council of Senior Citizens | American Public Health Association |
| National Committee to Preserve Social Security & Medicare | Brain Injury Association |
| Coalition for American Trauma Care | AO North American |
| American Red Cross | Orthopedic Trauma Association |
| American Health Association | American Burn Association |
| American College of Cardiology | Journal of Trauma |
lation. Any change in the ERISA protections is being viewed as “the camel’s nose under the tent” and could lead to more regulation of plans with resultant increase in cost.

Conclusion
Kaiser Permanente and the American College of Emergency Physicians are working hard to ensure passage of this legislation. It is the next logical step in managed care and is critical to the future of emergency care. What began as an historic agreement in 1996 is leading the way for America to protect the quality of health care for patients as well as to manage costs. If HR 815/S 356 becomes law, no longer will health plan members be put in the position of having to make their own diagnosis before going to the emergency department. No longer will emergency departments be denied reimbursement because a final diagnosis was deemed non-emergency even though the initial symptoms clearly signaled an emergency to the patient.

References:
4. Personal Communication, California Chapter of the American College of Emergency Physicians.

Show Your Support and Make a Difference
Kaiser Permanente’s agreement with the American College of Emergency Physicians is just one example of Permanente physicians becoming involved in the legislative arena to protect and advance the interests of health care consumers and Kaiser Permanente. Other opportunities for physician and provider involvement include our legislative efforts to expand health care coverage for uninsured children, protect Medicare for our Medicare members, and support activities related to women’s health issues.

Legislators need to hear from you, their constituents, regarding how Kaiser Permanente is making a difference in the communities they represent. We know you are busy, so the level of your involvement is up to you. You can help by calling or writing your legislator to request support for Kaiser Permanente positions, by participating in a legislator tour of your medical facilities, by meeting with your legislator to discuss Kaiser Permanente, by offering to serve as a health care expert resource to your legislator, or by testifying on our behalf at legislative hearings.

Show your support for Kaiser Permanente by becoming involved. It is fun, and together we can make a difference! To join Kaiser Permanente’s grassroots network formed to support Kaiser Permanente’s legislative efforts, contact Darrcy Loveland, Counsel in the Program Offices Government Relations Department (510-271-6867 or by e-mail at darrcy.loveland@kp.org).
Preparing Physicians for Media Interviews Helps Them Communicate More Comfortably and Effectively

With the spread of managed care nationally, opponents have grabbed the media’s attention with a torrent of criticism and accusations. One result is greater media scrutiny of HMOs and more skepticism. In this environment, being able to effectively communicate with reporters to ensure our story is heard, understood, and conveyed to the public is a survival skill.

Because they enjoy high levels of credibility with reporters and with the public, Kaiser Permanente physicians are ideal spokespersons for the program. Education by Kaiser Permanente staff or by contracted teachers prepares physicians for the important job of representing the program in the media, whether the topic be announcing the success of a new vaccine or promising research into the treatment of a common neurologic condition.

As Kaiser Permanente grows and assumes a more prominent leadership role on health care issues and on public policy, opportunities for physicians to speak with the media increase.

Sometimes these opportunities are positive, as when Kaiser Permanente pediatricians Stephen Black, MD, and Henry Shinefield, MD, told the world in 1992 that a newly licensed vaccine against haemophilus influenza type B had virtually eliminated diseases caused by the bacterium among our Southern California members. And sometimes physicians have to discuss contentious or confusing subjects such as a tragic medical outcome, allegations of worsening patient care, or the merits of certain health screenings. In either case, the key to doing well is preparation.

What's At Stake

The Los Angeles Times health reporter David Olmos has written that “HMOs are under the media’s microscope as never before.” One reason has been a concerted campaign by opponents of managed care to raise doubts among reporters and the public about quality of care at HMOs. Coupled with questionable practices by some managed care organizations, this drumbeat of criticism and questioning has led to greater distrust of health care managers.

“Credibility for health care organizations is faltering,” acknowledges Keith Sheldon, an adjunct professor of Public Relations at the University of Nevada at Las Vegas.

One result is that state legislators and the federal Congress have begun sowing a thicket of new regulations. Some, like mandating longer hospital stays for maternity patients, drive up health care costs for all consumers without any proof that they improve health outcomes.

A Role for Physicians

While the credibility of HMOs and their nonphysician managers is declining, doctors continue to enjoy a high level of trust among the public. A Gallup poll published in the March 1997 edition of Oregon Business magazine showed that 55% of the public rated doctors high or very high for honesty and ethics, exceeded only by druggists (65%) and the clergy (56%).

This represents an opportunity for Kaiser Permanente because of the role physicians play in our program. As partners in the program’s management, Permanente physicians are uniquely positioned to address questions and concerns about strategic direction as well as quality of care.

It’s no accident that leading journalists who follow health care, such as Janice Castro, senior editor of Time magazine’s electronic edition, TimeOnline, have credited the organization’s physician-CEO Dave Lawrence, MD, as among health care’s most effective spokespeople. That’s because as a physician he can respond about the medical impact of Kaiser Permanente’s actions in a far more believable way than a nonphysician executive could.

Kathleen Barco, Director of Media Relations in Southern California for the California Division, states the importance of physicians as program spokespersons this way. “The first rule in public relations is if we don’t communicate with the media—and to other audiences through the media—someone else will. We have to be willing to tell our story ourselves. And if we don’t use a physician to talk about our quality of care, it comes across as a business issue rather than as a commitment to patients.”

Understanding the Basics

Barco sends approximately ten physicians a year to educational sessions to improve their understanding of the media and how to effectively communicate in interviews.

1. For a good examination of the media and public criticism against managed care organizations read “HMOs Under Siege” by William Poole, California Medicine, June 1996.
2. The study showing that 94% of children younger than 18 months who received the Haemophilus influenza type B vaccine did not contract bacterial meningitis appeared in The Pediatric Infectious Disease Journal, August 1992. Drs. Shinefield and Black were highlighted in a widely distributed Kaiser Permanente news release about the effectiveness of the vaccine. “New Infant Vaccine Wipes Out Some Killer Diseases,” November 4, 1992.
4. In remarks delivered at a conference of Kaiser Permanente media relations staff in Denver on October 19, 1995.

JIM GERSBACH is a media and communications specialist who has worked in the Northwest Division since 1986. He has a degree in journalism from the University of Oregon.
“The first rule in public relations is if we don’t communicate with the media—and to other audiences through the media—someone else will. . . .”

“Less is More”

Denise Harrington of Harrington and Associates in Portland, Oregon, has educated more than four dozen Kaiser Permanente physicians about media appearances in the past five years, including the Northwest Division’s Medical Director, Al Weiland, MD.

“The big thing for physicians is learning to take what they know technically and turn it into lay terms,” says Harrington.

Like location in real estate, she stresses that simplicity is everything when talking to reporters. “Simplify, simplify, simplify,” she emphasizes. “Use the opportunity in front of the media to tell the story so that everyone understands. Use a metaphor, personal story, example, or analogy to explain your points. That’s how you break a technical subject down to what someone else can digest and understand.”

Harrington says a great example of someone using an analogy to make a point comes from Northwest Division internist John Bakke, MD. During a training interview in 1994 she asked him whether smoking filtered cigarettes was safer than smoking nonfiltered ones. “It’s like fastening your seatbelt and then driving off a cliff,” answered Dr. Bakke.

Also important, according to Harrington, is having a strong point of view about what you’re discussing. “You should try to change attitudes or inspire someone with what you say. Bring in the passion. Show that you care. You have one moment to inspire people. That has to be the backbone of your conversation with a reporter. As soon as you tap into that, people will care about what you have to say. Always remember, it’s the audience you’re speaking to through the reporter.”

Northwest Division doctors who have taken half-day classes from Harrington before making a TV appearance generally express that they felt more prepared and at ease.

“I had never been in a TV interview before, and I found the coaching lesson very helpful,” remarks neurologist Gregory Clark, MD, who spoke on the aftermath of strokes. “Hints about avoiding distracting mannerisms on TV, using good voice modulation, and how to make succinct statements were all useful.”

Navigating the National Spotlight

Another Kaiser Permanente physician who experienced the value of media training firsthand is Morris Maizels, MD. A family practitioner at Kaiser Permanente’s Woodland Hills Medical Center in Southern California, Dr. Maizels attracted media attention when research he did on the use of lidocaine nose drops to treat migraine headaches was published in a national medical journal.5

He took advantage of the program’s offer of media training from Aviva Diamond before facing interviews with all three national TV networks, CNN, The Los Angeles Times, The New York Times, radio stations, and a national morning TV talk show.

“The most important thing I got out of media training was that either I was going to get my message out or the media were going to get out theirs. The more I understood how the media report a story, the better I got about getting my message across,” says Dr. Maizels.

“If you don’t have a message that you can get across in a short space of words, reporters will come up with their own. So before facing the media, it is of supreme importance to know what message you want to get across.”

Dr. Maizels says there were a couple of messages he wanted to convey. One was that if his results could be repeated in a larger study it would be a major advance in the treatment of migraine. “I also wanted to get a message out as well that this only applied to people who had occasional migraines and did not apply to people who had daily headaches,” he says. “If I had to come up with a message today, it would be something simpler like, ‘Lidocaine could replace aspirin in the treatment of migraines.’ ”

Dr. Maizels advises other physicians faced with a microphone to keep in mind that “The reporter’s job is not fact-finding, it’s telling a story. If you don’t give him a story that will interest readers or attract viewers, he will find one elsewhere.”

That means explaining research findings or changes in health care policies to a reporter so that the impact on people—or the potential impact—is clearly spelled out.

**Eight Tips for Having a Great Media Interview**

Being interviewed by a reporter is a very human experience. The dynamics inherent in any interchange between two people mean that no two interviews will be exactly the same. The following eight suggestions, however, have proved helpful to physicians, managers, allied health professionals, and others preparing for interviews with reporters.

1. **Be prepared.**
   No matter how thoroughly you know a subject, it never hurts to think about what questions may be asked and how you’ll answer them. If you’re not certain about key facts or figures, look them up. If possible, find out in advance what the reporter wants to know, who else is being interviewed, and what the reporter’s attitude toward the subject may be. Kaiser Permanente’s media relations staff can usually find that information for you.

2. **Expect off-the-wall questions.**
   Be aware of what else is going on in health care, since many reporters will toss in a question or two about current health issues even if they aren’t directly related to Kaiser Permanente or to your specialty. For example, obstetricians might be asked about cloning. Or a geneticist might be asked about the reliability of DNA evidence.

3. **Speak in plain English.**
   Outside of scientific publications, don’t use jargon or big technical words unless you can immediately define them in terms understandable to people without medical training. For example, instead of “protease inhibitors,” try saying “new drugs that work to stop the AIDS virus from reproducing.”

4. **Be concise.**
   Keep answers short. Twenty to 40 seconds is ideal. That’s about three or four medium-to-short sentences. Reporters will often pick the best 10-12 seconds from these short replies.

5. **Guide the interviewer.**
   Don’t be led blindly along. Answer the reporter’s question but bridge back to your key points. And don’t be afraid to disagree with assertions a reporter makes or to correct misinformation you hear in a question or comment from a reporter.

6. **Be interesting.**
   Kaiser Permanente’s National Media and Public Relations Director Dan Danzig says, “Getting quoted means taking complex ideas and making them real for the average person—and average reporter.” So include an interesting fact, analogy, or example to enliven and clarify your answers. It’s okay to use an example from your clinical practice, but avoid naming patients or providing so much detail that confidentiality would be violated.

7. **Don’t guess.**
   If you don’t know the answer to a question, don’t be afraid to say “I don’t know.” A bluff could end up being quoted as fact. If you think you can get the answer before a reporter’s deadline, offer to call him or her back. Then do so promptly.

8. **Nothing’s off the record.**
   Never tell a reporter anything you wouldn’t want to see printed, televised, or broadcast over radio. If you’re not sure, that’s probably reason enough not to say it. And don’t be misled into thinking that just because cameras aren’t rolling or a reporter isn’t writing that what you’re saying is “off the record.” It isn’t.

Finally, remember that an interview is just an interview. If it ends up that a reporter misinterprets what you said, misquotes you, or quotes you saying something you wish you hadn’t said, it’s not the end of the world. Reporters are human and make mistakes just like the rest of humanity.
Dr. Maizels likens being interviewed to certain patient encounters. "You may be treating a very sick patient and the family corners you and asks questions that put you on the defensive. The principles of media training are very applicable, starting with, 'Don't be defensive.' There's a lot of spillover," he explains.

One of the important things he says Diamond taught him was to take control of the interview. He learned that he didn't have to limit his answers to what a reporter might ask but that he could springboard from almost any question into what he most wanted to discuss. It's a skill he's been able to draw on in forums other than media interviews.

"I used to dread giving talks in public, and now I really look forward to them because there's less anxiety. I'm much more confident that I can get my message across," concludes Dr. Maizels. "Once you've done a TV interview, a prepared public talk is a whole lot easier."

"My Attitude to Smoking," by Evany Zirul, MFA, DO.

Another piece of her work can be seen on page 71.
The Development of the Social Mission of Kaiser Permanente

There are many ways to address the history of Kaiser Permanente and many available published versions (see references). For the inaugural issue of The Permanente Journal and to initiate the “A Moment in Time” column on the history of Kaiser Permanente, it seems appropriate to focus on the history and development of the social mission of the program. While many of the pioneer health care programs in the country have been converted to investor-owned companies, Kaiser Permanente has explicitly chosen to remain a nonprofit program. In the wake of that decision recent new accords have been reached between the Health Plan and the Permanente Medical Groups to reaffirm the social mission of the Program.

Therefore it seems particularly apposite at this pivotal time to examine the development of the Program’s social mission, which has emerged from its history, with its roots buried deeply within the Kaiser Permanente culture. By social mission, in this context I mean the statement of overall social purpose that defines the role of Kaiser Permanente within the communities it serves. As we begin to craft the modern expression of that social purpose at the turn of the new century, we would do well to pause and consider the social basis of Kaiser Permanente and particularly how that shapes the recently articulated concept of “direct community benefit investment.”

The newly announced Kaiser Permanente direct community benefit program will be most clearly understood and appreciated if we consider it within the context of our rich past.

For the first 35 years of the Program’s existence, at least until 1973 and the passage of the national Health Maintenance Organization Act, the social purpose of Kaiser Permanente and other nonprofit prepaid group and staff model plans was embodied in their very existence. Kaiser Permanente was founded at the end of World War II by our great physician leaders, such as Sidney R. Garfield and the founding partners in Northern California as well as Ernest W. Saward in the Northwest. Its main purpose was to demonstrate a new way of delivering medical care to the American people. The same thing can be said about similar programs emerging at about the same time, such as the Group Health Cooperative of Puget Sound in Seattle, the Group Health Plan in the Minneapolis-St. Paul area, Group Health Association of Washington, D.C. and the Health Insurance Plan of Greater New York.

A wartime industrial health program, directed by Dr. Garfield, had been delivering health care services to thousands of industrial war-effort employees and their families at the shipyards in Oregon and California and at the many other industrial enterprises organized by Henry J. Kaiser and his associates. It was generally expected that the hundreds of physicians and thousands of other health care workers engaged in providing that care would go back to the fee-for-service world of medical care at the end of the war. But a handful of the pioneers in that wartime system envisioned a better way to organize and deliver health care services to people. They had the vision of the population-based clinical models that would come to be exemplified by modern integrated health care systems like our own. And they clearly understood the revolutionary power of the capitation payment method for reimbursing physicians. These understandings anchored the medical care programs that emerged first in Northern California and in Oregon, soon after in Southern California, and by the early 1960s in Hawaii. These four regions formed the nucleus of early Kaiser Permanente.

When we assess the current health care system it is easy to forget the nature of the system 50 years ago and the revolution in organizing and financing medical care that was created by our program and others like it. Fifty years ago, at the end of World War II, medical practice was almost entirely solo practice. Many people had no access to care. When the U.S. entered World War II in 1941 a very large proportion of the military inductees examined for military service were seeing a doctor for the first time in their lives. When medical care was given in those days, it was given in the doctor’s office, or perhaps in the patient’s home. The basis of physician payment was fee-for-service and the fee was paid out-of-pocket by the patient.

Our founders recognized the critical importance of capitation payment of physicians and the budgeting of hospitals as an organizing principle in the delivery of care to populations. And they recognized the concept that care could best be delivered to individual patients when physicians considered the na-
ture of the populations served. Those founders had a fundamental understanding that a capitlated, group practice of medicine reversed the basic economics of health care and that paying for physician care via a capitlation system created the potential for developing a totally different culture than the culture of fee-for-service medicine. In this new model physicians viewed their role obligations differently. Even the knowledge component of the culture of medicine was different under capitlation than under fee-for-service. So, in order to change the American medical care system, the founders announced to the world that they were creating a new kind of health plan and went out to compete in the medical marketplace, with the encouragement and support of Henry J. Kaiser.

When one thinks about social mission organizations, it is easy to assume that these organizations are not business-like or hard competitors. But from the very beginning of this social experiment the programe leaders understood the requirement for operating the medical care program under the strictest business principles. These leaders were not starry-eyed utopians or quixotic adventurers tilting at windmills. They were hartheaded, pragmatic medical managers who understood the need to manage their social experiments in the most aggressive manner in order to survive in what was an extremely hostile environment. The stories of surviving pioneers abound with legends about such measures as requiring employees to turn in a pencil stub in order to requisition a new pencil.

From this acute understanding of market realities sprang the concept of market-leading performance, of which we are hearing a great deal today. But Kaiser Permanente would not have survived those difficult lean years if the early program hadn’t led the market in financial performance, and led it by a very wide margin. It was market-leading performance that ultimately brought the attention of the nation to the program’s existence and created the opportunity for the peaceful revolution of American medicine that we have led.

A lot of water has passed over the Bonneville Dam since the launching of the prototypical programs in Oregon and in California that became Kaiser Permanente. There have been three generations of Program leadership since the pre-history of the shipyard days. The success of our revolution is marked by the plethora of imitators who are leading the charge to take over the health care market. Most observers have been astounded by the momentum that has been created by the rapid movement from fee-for-service to capitation payment systems in America. The developing relationship between purchasers of care, investor-owned managed care companies, and vertically integrated health care systems has dramatically increased the use of capitation as the financial mechanism of choice within health care. It has quickly eroded Kaiser Permanente’s historical competitive advantage, which was basically a function of significantly lower hospital utilization.

As Kaiser Permanente now faces the new market challenge three things are necessary for our very survival. The first is the acceptance that we have the potential to lead a new health care revolution—that is, a revolution in the way care is delivered to patients in a population-based health care system. This social purpose can be hard-wired into our very organizational being. Secondly, we need a dramatic reconfirmation of our commitment to market-leading performance. The sad truth is that we are not leading many of the markets in which we compete. That situation must change or our social purpose dies as our program dies. As our founders clearly understood, we absolutely must be able to produce an excess of revenue earned over the costs of providing high-quality and satisfying care for our members, even in the most competitive of our markets. The third and equally important imperative is the need to reconfirm our intent to use this earned surplus as a “social dividend” to fund our direct community benefit investment.

As this new journal expands and grows over the forthcoming months and years this column will provide the opportunity to rediscover the important elements of our past that will serve as a guide to our future development. Understanding the past provides the key to the future. And in the case of Kaiser Permanente, understanding how the past created our current culture provides the key to our purpose and lays the foundation for recreating Kaiser Permanente for the 21st Century.

References:

The Lighter Side of Medicine

A pediatrician, an internist, and a surgeon go duck hunting. All of them are sitting behind a duck blind. They draw straws to see who gets to shoot first. The pediatrician wins. As they sit there, a large flock flies overhead.

The pediatrician says, "Well, these animals have webbed feet and long necks, they quack, and they float on water. They must be ducks." Bang! He shoots and down comes a duck.

Next up is the internist. Soon another flock flies over. The internist says, "Well, I can rule out the fact they are hippos. They can't be giraffes. They certainly aren't dinosaurs. They're not reptiles..." On and on he goes. By the time the internist considers what the flock really is, they've flown out of sight and he doesn't get off a shot.

Next up is the surgeon. A flock flies over. Bang! He shoots without hesitation and asks, "What the hell was that?"

Who knows what practicing medicine will be like in the 21st century? The only thing I'm sure of is that I'll still wear gloves when I need to examine certain people's axillae.

(Contributed by John Vogt, MD, Permanente Medical Association of Texas)

If laughter is the best medicine, shouldn't "Tickle Me Elmo" only be dispensed by prescription?

(Contributed by Jonathan Hall, MD, The Permanente Medical Group, Inc.)

How long do cold sores last? Seven days with treatment, one week without.

(Contributed by Harold Bass, MD, Southern California Permanente Medical Group)

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(LIFE ON THE SUNNYSIDE)

WHY IS THIS CLINIC SO BACKED UP?

HE DIED SEEING PATIENTS! WHAT DO WE DO NOW?

...NOMINATE HIM FOR THE EXTINGUISHED PHYSICIAN AWARD!

(Created by Stephen Bachhuber, MD, Northwest Permanente, PC. Note: Northwest Permanente, PC has a Distinguished Physician Award.)
Abstracts

These are abstracts of recent clinical articles authored or co-authored by Kaiser Permanente clinicians. All abstracts are reprinted with permission from the publisher.

Effect of a Copayment on Use of the Emergency Department in a Health Maintenance Organization


Background
Use of the emergency department for nonemergency care is frequent and costly. We studied the effect of a copayment on emergency department use in a group-model health maintenance organization (HMO).

Methods
We examined the use of the emergency department in 1992 and 1993 by 30,276 subjects who ranged in age from 1 to 63 years at the start of the study and belonged to the Kaiser Permanente HMO in Northern California. We assessed their use of various HMO services and their clinical outcomes before and after the introduction of a copayment of $25 to $35 for using the emergency department. This copayment group was compared with two randomly selected control groups not affected by the copayment. One control group, with 60,408 members, was matched for age, sex, and area of residence to the copayment group. The second, with 37,539 members, was matched for these factors and also for the type of employer.

Results
After adjustment for age, sex, socioeconomic status, and use of the emergency department in 1992, the decline in the number of visits in 1993 was 14.6 percentage points greater in the copayment group than in either control group (P<0.001 for each comparison). Visits for urgent care did not increase among subjects in any stratum defined by age and sex, and neither did the number of outpatient visits by adults and children. The decline in emergency visits for presenting conditions classified as "always an emergency" was small and not significant. For conditions classified as "often an emergency," "sometimes not an emergency," or "often not an emergency," the declines in the emergency department were larger and statistically significant, and they increased with decreasing severity of the presenting condition. Although our ability to detect any adverse effects of the copayment was limited, there was no suggestion of excess adverse events in the copayment group, such as increases in mortality or in the number of potentially avoidable hospitalizations.

Conclusions
Among members of an HMO, the introduction of a small copayment for the use of the emergency department was associated with a decline of about 15 percent in the use of that department, mostly among patients with conditions considered likely not to present an emergency.

Dermatologists in Kaiser Permanente-Northern California

Satisfaction, Perceived Constraints, and Policy Options

Davida J. Weinberg, PhD; Patricia G. Engasser, MD.


Background and Design
A survey was conducted in a large closed-panel health maintenance organization to identify and understand influences on dermatologists' job satisfaction and preferences for policies affecting management of routine dermatologic care. Of the population of 98 dermatologists, 91 (93%) responded. The main variables of interest were current and ideal practice characteristics (time allocations and case mix) and (dis)agreement with 4 statements: (1) I am satisfied with my job; (2) I favor a direct access model over a gatekeeper model for patients seeking dermatologic care; (3) I favor training primary care physicians to evaluate and treat routine dermatologic problems; and (4) I welcome incorporating nurse practitioners and physician extenders into my practice.

Results
The dermatologists currently spend 86% of their work time providing patient care. On average, 70% of their case load involves routine problems; 56% would ideally increase the complexity mix of their patients. The survey reveals gender differences in perceptions of time constraints and opportunities for professional development. Most dermatologists (88%) report they are satisfied with their jobs. Satisfaction correlates strongly with their perceived ability to deliver excellent care, use their skills, and develop new skills (correlations, 0.53-0.59). Although 78% favor retaining direct patient access, at least 60% endorse more cooperative work with primary care physicians and nurse practitioners. These views are related to their satisfaction, interest in challenging cases, development and use of new skills, and perceived relationships with colleagues and support staff.

Conclusions
Understanding the factors that affect physician preferences can help to identify policies that potentially improve efficiency without compromising quality of care or physician satisfaction. If routine problems can be effectively managed in cooperation with other health care providers, this may also lead to the more complex case mix these dermatologists ideally want. Further study might focus on the scheduling and referral processes that influence both cost-effectiveness and continuity in coverage for dermatologic problems.
Prevalence and Incidence of Adult Pertussis in an Urban Population
Mary E. Nennig, BSN, CIC; Henry R. Shinefield, MD; Kathryn M. Edwards, MD; Steven B. Black, MD; Bruce H. Fireman. JAMA 1996;275:1672-1674.

Objectives
To determine the prevalence of Bordetella pertussis infection among adults who have prolonged cough for 2 weeks or longer and to estimate the incidence of B pertussis infection in adults in a defined urban population.

Design
A prospective clinical study.

Setting
Kaiser Permanente, San Francisco Medical Center.

Participants
One hundred fifty-three referred and participating health plan members 18 years old or older with the complaint of cough persisting for 2 weeks or longer and 154 health plan members 18 years old or older with no cough for the past 3 months (controls) were enrolled. Medical records for an additional 100 patients randomly sampled from 676 patients 18 years old or older with an ambulatory diagnosis of cough (60 with prolonged cough) were also reviewed.

Main Outcome Measures
Prevalence of adult pertussis as determined by enzyme-linked immunosorbent assay IgG antibody levels of pertussis toxin in individuals with prolonged cough for 2 weeks or longer and the incidence of adult pertussis in San Francisco Kaiser health plan members.

Results
The prevalence of adult pertussis was 12.4% of the participating referrals. The incidence of adult pertussis was estimated to be 176 cases per 100,000 person-years (95% confidence interval, 97-255 cases).

Conclusions
Adult pertussis is a significantly greater public health threat than previously suspected. Booster doses of acellular pertussis vaccine after 7 years of age may be an effective approach to minimize transmission and infection.

Enrollment Duration, Service Use, and Costs of Care for Severely Mentally Ill Members of a Health Maintenance Organization
Bentson H. McFarland, MD, PhD; Richard E. Johnson, PhD; Mark C. Hornbrook, PhD. Arch Gen Psychiatry 1996;53:938-944.

Background
The rapid growth of prepaid health care and the increasing enrollment of Medicaid clients in health maintenance organizations (HMOs) raise concerns about the adequacy of services for persons with severe mental illness in capitated health plans. Uncontrolled studies have suggested that enrollment of HMO members with mental illness may be prematurely terminated.

Methods
We identified 250 adult Kaiser Permanente Northwest Region (Portland, OR) members who were enrolled during 1986 or 1987 and had chart diagnoses of schizophrenia or bipolar disorder. Severely mentally ill subjects were matched by age and sex with control HMO members with and without diabetes mellitus. Records of the HMO and the state mental health agency were reviewed to determine HMO enrollment duration, private and public service utilization, and HMO costs of care during the 4-year follow-up period.

Results
The severely mentally ill subjects had 42 months of HMO enrollment during the follow-up period compared with 37 months for the controls without diabetes mellitus and 47 months for the patients with diabetes mellitus (P<.001). When HMO enrollment prior to the study was taken into account, the severely mentally ill subjects and those with diabetes mellitus had similar membership duration. Among the severely mentally ill subjects, community mental health service use was related to longer duration of HMO enrollment (P<.05) but HMO costs of care per member per month were not related to retention. The severely mentally ill subjects were high users of mental health services but their use of general medical care was similar to that of the controls without diabetes mellitus.

Conclusions
This controlled study found no evidence for early termination of HMO members with costly mental illness. Use of community mental health care was associated with longer duration of HMO enrollment.

Stroke in Users of Low-Dose Oral Contraceptives
Diana B. Petitti, MD; Stephen Sidney, MD; Allan Bernstein, MD; Sheldon Wolf, MD; Charles Quesenberry, PhD; Harry K. Ziel, MD. N Engl J Med 1996;335:8-15.

Background
Previous studies have linked the use of oral contraceptive agents to an increased risk of stroke, but those studies have been limited to oral contraceptives containing more estrogen than is now generally used.

Methods
In a population-based, case-control study, we identified fatal and nonfatal strokes in female members of the California Kaiser Permanente Medical Care Program who were 15 through 44 years of age. Matched controls were randomly selected from fe-
male members who had not had strokes. Information about the use of oral contraceptives (essentially limited to low-estrogen preparations) was obtained in interviews.

**Results**

A total of 408 confirmed strokes occurred in a total of 1.1 million women during 3.6 million woman-years of observation. The incidence of stroke was thus 11.3 per 100,000 woman-years. On the basis of data from 295 women with stroke who were interviewed and their controls, the odds ratio for ischemic stroke among current users of oral contraceptives, as compared with former users and women who had never used such drugs, was 1.18 (95 percent confidence interval, 0.60 to 2.16). With respect to the risk of hemorrhagic stroke, there was a positive interaction between the current use of oral contraceptives and smoking (odds ratio for women with both these factors, 3.64; 95 percent confidence interval, 0.95 to 13.87).

**Conclusions**

Stroke is rare among women of childbearing age. Low-estrogen oral contraceptive preparations do not appear to increase the risk of stroke.

**Genetic and Environmental Influences on Insulin Levels and the Insulin Resistance Syndrome: An Analysis of Women Twins**


Multiple factors may determine insulin resistance and the insulin resistance syndrome. The contributions of genes and environment to the distribution of fasting insulin levels and to the associations of fasting insulin with elements of the syndrome were evaluated in the second examination of the Kaiser Permanente Women Twins Study (Oakland, California, 1989-1990). Subjects included 556 white women (165 monozygous twin pairs, 113 dizygous pairs; 455 women with normal glucose tolerance, 75 with impaired glucose tolerance, and 26 with non-insulin-dependent diabetes by World Health Organization criteria). The intraclass correlation coefficients for log fasting insulin for monozygous and dizygous twin pairs were 0.64 and 0.40, respectively. After adjustment for age, behavioral factors, and body mass index, the estimated classic heritability was 0.53 (p = 0.003). Commingling analysis of fasting insulin indicated the presence of four distributions (p<0.001), consistent with at least one, and perhaps two, genes influencing this trait. In an unmatched multiple regression model among women from monozygous twin pairs only, log fasting insulin was independently associated with body mass index (p<0.0001), waist/hip ratio (p = 0.02), and glucose intolerance (p = 0.02), and glucose intolerance (p = 0.04), but not with triglycerides, high density lipoprotein cholesterol, or hypertension. After removal of genetic influences by analysis of monzygous intrapair differences, only body mass index (p<0.0001) remained independently related to fasting insulin. The authors conclude that, in addition to significant genetic influences on fasting insulin, environmental or behavioral factors (particularly nongenetic variation in obesity) are important determinants of fasting insulin and the insulin resistance syndrome.

**Patients with Amyotrophic Lateral Sclerosis Receiving Long-Term Mechanical Ventilation**


**Objective**

To examine advance care planning and outcomes of patients with amyotrophic lateral sclerosis (ALS) receiving long-term mechanical ventilation (LTMV).

**Design:** Case series.

**Setting**

Population-based study in homes and chronic care facilities in four states, and Home Ventilator Program of California Kaiser Permanente.

**Patients**

Seventy-five ALS patients receiving LTMV were identified; 11 died prior to interview, and 6 were totally locked in; of 58 (86%) who were able to communicate consented to structured interviews, of whom 36 lived at home and 14 in an institution.

**Results**

Thirty-eight patients (76%) had completed advance directives, and 96% wanted them. Thirty-eight patients wished to stop LTMV in certain circumstances, of whom 30 had completed advance directives. Those who had completed advance directives were more likely to have communicated their preference to stop LTMV to family and physician than those who had not (76 vs 29%; p=0.05). Patients living at home rated their quality of life on a 10-point scale better than those in an institution (7.2 vs 5.6; p=0.0052), and their yearly expenses were less ($136,650 vs $366,852; p=0.0018).

**Conclusions**

Most ALS patients receiving LTMV would want to stop it under certain circumstances, and the process of advance care planning enhances communication of patient preferences to family and physicians. Home-based LTMV is less costly and associated with greater patient satisfaction.
Reducing Risk by Improving Communication

Communication failures between patient and physician are a significant factor in a patient’s decision to sue; however, the risks from communication failures can be prevented or minimized. Physician education can enhance communication and interpersonal skills. Fully informing patients of the risks and benefits of anticipated treatments and being open and honest about adverse events can also improve patient satisfaction and compliance and can reduce the risk of a claim or lawsuit. Implementing systems to ensure patients are advised of adverse test results and are identified for follow-up are other ways to improve patient care and reduce liability exposure.

Fewer than two percent of patients who suffer significant injury due to negligence initiate a malpractice claim. Nonetheless, the incidence of medical malpractice claims has increased in the last 30 years. Multiple factors cause a patient to file a medical malpractice claim. Of the many factors, however, communication failure has been identified as a key issue. A review of claims data from 1976 to Fall, 1996 for the Controlled Risk Insurance Company (CRICO), the professional liability insurer for Harvard University-affiliated health care institutions, employees, and affiliated physicians, reveals that 12 percent of their total claims involved communication failure as the key risk management issue.

In a separate survey, communication problems between physicians and their patients were identified as contributing to many decisions to file malpractice claims. This article explores some of the communication issues relating to patient dissatisfaction and identifies some risk strategies to reduce the likelihood of a claim.

Every physician is not Doctor Marcus Welby. Adopting some of the television physician’s communication skills with patients can, however, significantly reduce the likelihood of being sued—particularly for a primary care physician. A breakdown in communication between patient and physician may result in the patient becoming angry. When poor communication is combined with a bad outcome, the anger may result in a claim or lawsuit. Improving communication skills can improve patient satisfaction and can simultaneously reduce the likelihood of being sued. A recent study of communication behaviors associated with physician malpractice history concluded that routine physician-patient communication for primary care physicians with prior malpractice claims differs from that of those without a claims history. In comparison with their peers who had at least two claims, primary care physicians without a claims history provided patients with more information about what to expect and the flow of the visit, laughed and used humor more frequently, and tended to solicit patients’ opinions, to check their level of understanding, and to encourage them to talk. Interestingly, the study also found that primary care physicians without claims spent longer in routine visits than their peers with claims.

Open and honest communication with patients is important for preserving the patient-physician relationship and reducing the likelihood of a claim or lawsuit. Medicine is not perfect, and to err is human. Many physicians, out of fear of attracting a lawsuit, may wish to avoid discussion of mishaps. Similarly, some attorneys recommend not making any statements about an error out of concern for potential liability. By failing to reveal errors, however, a physician may, in fact, increase his or her risk of being sued. A recent survey reported that almost all (98%) of the patients who responded to the survey (149 of 400) wanted or expected their doctor to acknowledge errors, whether or not the error caused any harm. Further, patients who suffered from moderate and severe mistakes were more likely to report the doctor to authorities or consider filing a lawsuit if the doctor failed to disclose the error. In a separate study that evaluated factors that prompted families to file medical malpractice claims after perinatal injuries, 24% of the respondents indicated that they filed lawsuit when they realized the physician had not been completely honest about what had happened, had allowed them to believe things that were not true, or had intentionally misled them. Twenty percent of the respondents to the same survey filed a lawsuit when they decided the courtroom was the only forum in which they could find out what had happened to them from the physicians who provided care. Although disclosure will not avoid all lawsuits or reports to regulatory bodies, factual disclosure of an adverse occurrence can minimize a patient’s anger and desire for revenge. Disclosure can also avoid the perception that facts were intentionally withheld, a factor that can anger patients and judges and can potentially lengthen the statute of limitations. Of course, information should be limited to facts. Speculation as to cause, characterization of events as negligence, and assignment of blame should be avoided. It is important, however, to consult legal counsel prior to any discussion involving an actual case.
Aside from interpersonal issues, medical language can present major communication problems. The medical profession uses technical language not readily understood by many patients. Communication difficulties are compounded by differences in the native languages, cultures, and health beliefs of the physician and patient. Simple strategies such as providing written care instructions can go a long way in aiding patient understanding of the detailed information provided during a visit. Ensuring that the patient understands the instructions can be more challenging and may require the physician to check the patient's understanding or may involve use of any number of interpretation services, ranging from the AT&T language line to in-person interpreters for sign or other languages. Use of terms such as “clear liquids” may mean one thing to a health care provider and another thing to an uninformed patient. One health care provider described a patient who denied he had diabetes but informed his physician that he had “sugar.”

Informed consent issues were identified as the risk management issue in 31% of the CRICO communication-related claims. The particular issues included inadequate informed consent for surgical/invasive procedures, inadequate consent for provider identity, lack of any consent, inadequate consent for other treatment options, and inadequate consent for postmortem procedures. The explicit requirements of informed consent can vary among states due to different state laws or court decisions. However, informed consent requires with limited exceptions a physician to warn patients regarding the risks of contemplated treatments or surgical procedures, acceptable alternate methods of treatment, and the contemplated benefits of the proposed course of treatment. Fully informing a patient of the risks and benefits of the recommended treatment as well as the risks and benefits of alternative therapies not only satisfies legal requirements but also can ensure the patient has appropriate expectations of the risks and benefits of the proposed therapy and can gain the patient's compliance with the treatment program. Knowledge of the risks can avoid a patient's anger and belief that something went wrong if, in fact, a known risk does occur. Documenting the informed consent discussion is necessary to support the physician in the event of a conflict between patient and physician. However, vague or generalized chart notes about the informed consent discussion should be avoided; detailed, specific information is needed. Again, for patients who experience language, cultural, or physical impairments, it is essential to provide adequate interpreter services and to document this fact in the medical record.

Last, but not least, physicians are encouraged to have a reliable method to ensure patients are notified of abnormal test results. In one study, approximately 17% to 32% of physicians reported having no reliable method to make sure that the results of all tests ordered were received.6 One third of physicians did not always notify patients of abnormal results. Only 23% of physicians reported having a reliable method for identifying patients overdue for follow-up. These practices can put a physician at greater risk of liability exposure.

In summary, although communication failures between patient and physician are a significant factor in a patient's decision to sue, the risks from communication failures can be prevented or minimized. Physician education can enhance communication and interpersonal skills. Fully informing patients of the risks and benefits of anticipated treatments and being open and honest about adverse events can also improve patient satisfaction and compliance, and can reduce the risk that a claim or lawsuit will be filed. Implementing systems to ensure patients are advised of adverse test results and identified for follow-up are other ways to improve patient care and reduce liability exposure. ✤

References:
Letters to the Editor

We look forward to your letters to create a national conversation about both the content of The Permanente Journal and what interests you in general. We anticipate that your letters will link the quarterly issues with each other and provide a more dynamic exchange on the Internet.

“Visit to the Nursing Home,” by Evany Zirul, MFA, DO. Another piece of her work can be seen on page 62.
By The Numbers:
Permanente Medical Groups At a Glance

Permanente Medical Groups

Total Physicians (FTEs) ................................................................. 9415
Board Certified (U.S. average: 63%) ............................................ 88%
Board Eligible ........................................................................... 5%
Average Number of Years in Practice* ...................................... 11
Turnover† ................................................................................... 6%

Ratio of Applicants to Hires‡ ..................................................... Ranges by Medical Group from 4:1 to 40:1

Kaiser Permanente Medical Offices (Includes CHP)* ..................... 297
Kaiser Permanente Medical Centers (hospitals)§ ......................... 26
Kaiser Permanente Medical Centers with JCAHO Accreditation (JCAHO national average: 80%) ................................. 100%
Kaiser Permanente Medical Centers Accredited with Commendation (JCAHO national average: 10%) ............................. 26%
Contract Hospitals¶ .................................................................. 333
Contract Hospitals with JCAHO Accreditation ............................... 99.7%

1 Number of physicians totals 9,653 when the 238 staff physicians of Community Health Plan (CHP) are included in the tally. Kaiser Permanente’s Northeast Division and CHP affiliated in 1996.
2 Data available from seven of 12 Permanente Medical Groups (PMGs): Colorado, Mid-America (Kansas area), Northeast (New York area), Northern California, Northwest (Oregon, Southwest Washington), Ohio and Southern California.
3 Source is Kaiser Permanente’s 1995 HEDIS Report, which includes contract physicians.
4 Data available from nine of 12 PMGs: Colorado, Georgia, Hawaii, Mid-Atlantic (Maryland area), North Carolina, Northern California, Northwest (Oregon, Southwest Washington), Ohio, Southern California.
5 Primary care includes family practice, general practice, internal medicine, pediatrics, and, in the case of four PMGs, obstetrics and gynecology.
6 Does not equal 100 percent due to rounding of numbers.
7 Percentage of Native American physicians in the U.S. equals a statistically insignificant 226, or 0.0%.
8,9,10 The PMGs do not own these facilities. They are included to provide an overview of where the PMGs practice medicine.

Caucasian | Asian | African American | Latino | Native American | Other
Caucasian | 72.1% | 79.8% | 19.0% | 10.3% | 5.4% | 2.9% | 3.3% | 4.5% | 0.2% | 0.0% | 0.1% | 2.5% | 90%

Kaiser Permanente
U.S.
The 12 Permanente Medical Groups
Number of Physicians (FTEs)

Northwest Permanente, P.C. (NWP)  566 Physicians
            (Group Health physicians constitute an additional 482 FTEs)

Hawaii Permanente Medical Group, Inc. (HPMG)  307 Physicians

Northeast Permanente Medical Group (NEPMG)  113 Physicians
            (CHP physicians constitute an additional 238 FTEs)

Ohio Permanente Medical Group (OPMG)  211 Physicians

Mid-Atlantic Permanente Medical Group (MAPMG)  453 Physicians

Southern California Permanente Medical Group (SCPMG)  3222 Physicians

The Carolina Permanente Medical Group, P.A. (TCPMG)  135 Physicians

Permanente Medical Association of Texas (PMAT)  153 Physicians

Permanente Medical Group of Mid-America, P.A. (PMGMA)  55 Physicians

The Permanente Medical Group, Inc. (TPMG)  3573 Physicians

Colorado Permanente Medical Group, P.C. (CPMG)  454 Physicians

Permanente Medical Group of Mid-America, P.A. (PMGMA)  55 Physicians

The Southeast Permanente Medical Group, Inc. (SEPMG)  173 Physicians

The Permanente Medical Group, Inc. (TPMG)  3573 Physicians

The 12 Permanente Medical Groups
Number of Physicians (FTEs)
Announcements

Quality and Learning Conference
The Quality and Learning Conference will be held November 13-15, at the Sheraton Harbor Island Hotel in San Diego. The proceedings on the 13th will be optional minicourses, special interest groups, and an opening reception.

If you have any questions regarding the conference, contact Hannah King at (510) 271-6609.

KP Clinical Practice Exchange
http://www.kpexchange.org
Introducing KP Clinical Practice Exchange, a secure Internet-based environment for health care professional access to clinical resources, communications, and information within Kaiser Permanente. Search for the latest findings from colleagues, discuss research efforts and share common interests, locate colleagues around the corner or across the state, and contribute to the diversity and value of the Exchange with your documents.

Contact Rachelle.Mirkin@kp.org for further information.

Editing Help with Your Manuscripts
Even before you submit your manuscript to The Permanente Journal for publication consideration, you can obtain help with its preparation. The Medical Editing Department, which is part of the Oakland-based Kaiser Foundation Research Institute, is a resource available to researchers throughout the Program. The department's professional editors can help you organize your paper, edit your text, verify references, and prepare tables and graphics for publication. Call Medical Editing at (510) 987-3573 for information about editorial services for your manuscript.

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Are you a physician about to publish a research article, present a major paper, obtain a large research grant, or author a book? If so, the communications professionals of Kaiser Permanente want to hear from you! By telling us about your work before it reaches the public domain, we can help you develop a communications strategy to seek media coverage and gain recognition for your efforts.

Simply call the KP Research Hotline at 1(800) 524-7702. Available 24 hours a day, the Hotline is supported by the Permanente Medical Groups and Kaiser Permanente communications staff Programwide. Sharing our organization's research more widely will support Kaiser Permanente's position as a leader in clinical innovation, promote our commitment to continuous quality improvement, and help improve the health of the communities we serve.

Send Us Your Announcements
The Permanente Journal is interested in your announcements. Topics may include upcoming multidivisional or Programwide meetings, conferences, or other events of interest to Permanente physicians. These events typically should be sponsored by the Permanente Medical Groups or Kaiser Permanente.

The Journal is also interested in publishing details of new services available to PMG physicians in more than one Medical Group (a new Web Page for Permanente pediatricians, for example) and major achievements by Permanente physicians or Permanente Medical Groups. These may include national awards, major grants, leadership appointments, NCQA accreditation, and other significant accomplishments.

Deadline for inclusion of your announcements in our second issue, which will be published September 1, 1997, is July 14, 1997. Items should be short and include a phone number for the key contact. The staff of The Permanente Journal reserves the right to determine which announcements will be published.

Send your announcements to Merry Parker, Managing Editor, 500 NE Multnomah St, Ste 100, Portland, OR 97232.

CDC Video Conference: Hepatitis C
The Centers for Disease Control and Prevention and the Hepatitis Foundation International are co-sponsoring a national video conference on Saturday, November 22, 1997 through the Public Health Training Network.

This 2-1/2 hour conference will accommodate East and West Coast time differences with two live, interactive sessions, the first at 8:30 am EST, and the second at 9:00 am PST. Attendees will be charged a nominal fee for registration and reference materials.

For information about a site in your area call the Hepatitis Foundation International at 1-800-891-0707. To register call Faxx Back at 888-CDC-FAXX and request document #130010.
**Instructions for Authors**

Send all manuscripts to:
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The Permanente Journal
500 NE Multnomah St, Suite 100
Portland, Oregon 97232
(503) 813-2659

**Editorial Policies**

Manuscripts are received with the understanding that they have not been published or submitted for publication in whole or in part elsewhere, except for a scientific abstract, unless otherwise specified. Manuscripts will be reviewed by the Editor, Associate Editors, members of the Review Board, and appropriate specialists internally and externally as deemed necessary. Acceptance of a paper for publication is based on the relevance, quality of work described, clarity of the presentation, and especially, applicability to daily clinical practice. If the article is accepted for publication, editorial revision may be made to aid clarity and understanding without altering the meaning. (See Proofreading.)

Articles, editorials, Letters to the Editor, and other text material in the Journal represent the opinion of the authors and do not necessarily reflect the opinion of Kaiser Permanente.

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**Types of Papers**

There is no length requirement, although concise, readable, and practical articles are preferred. Emphasize information that clinicians can use in their practice, that gives them regional and national perspective, and that integrates “Permanente Medicine” into the largest scope of healthcare delivery.

**Notes About Specific Sections**

- **Clinical Contributions**
  
  Clinical articles on the practice of medicine within the Permanente Medical Groups and their affiliates. Article topics may include reviews of “successful” practices, programs and policies, and analyses of new technologies. (word count range is 725–5,000)

- **Original Research**
  
  Articles on Kaiser Permanente’s research contributions through original, empirically-based research in areas of great clinical importance. This includes outcomes research, studies that use Kaiser Permanente databases, and rigorous evaluations of best practices and innovations in clinical care. (word count range is 725–5,000)

- **Health Systems Management**
  
  Articles from a “systems” perspective, recognizing that medicine is practiced in the larger context of health care, involving ambulatory care delivery, hospital strategy, program expansion and network development and is supported by information technology and the Internet. Growth in this system occurs through the leadership, education, and development of clinicians. (word count range is 725–3,000)

- **External Affairs**
  
  Nonclinical articles on external issues related to the practice and perception of Permanente medicine. These may include articles by customers and consumer groups, as well as internally generated articles on health policy, the media, the marketplace, and our social mission. (word count range is 725–3,000)

- **Medical Legal Update**
  
  Articles educating clinicians about medical legal issues, including risk management, claims review, loss prevention, and ethical issues. Improved clinician communication with patients, families, and the health care team is the goal. (word count range is 725–1,400)

- **Soul of the Healer**
  
  Poetry, stories, musings, and nonfiction articles written by Permanente clinicians as an expression of the soul of the healer. This is a forum to appreciate each other personally through creativity in the humanities. (word count range is 725–2,200)

- **A Moment in Time**
  
  A look back at milestones in the history of the Permanente Medical Groups. (word count range is 700–740)

- **Abstracts**
  
  Abstracts from articles published in other journals, preferentially featuring the works of Permanente physicians.

- **Announcements**
  
  Significant achievements related to the practice or management of medicine by Permanente physicians or Permanente Medical Groups. Also posted will be upcoming courses, meetings, and conferences sponsored by the Permanente Medical Groups or Kaiser Permanente.

- **The Lighter Side of Permanente Medicine**
  
  Jokes, stories, and humorous encounters tied to the practice of Permanente medicine, managed care, or health care in general.

**Manuscript Preparation and Processing**

A 3 1/2” disk containing the article and one complete paper copy of the manuscript must be submitted, along with a photograph of the author(s) labeled with name and a 2-3 sentence author profile. (Please, no photos smaller than 2x3 or larger than 5x7.) If more than four authors, submit the authors’ profiles only—no photographs. Manuscripts must be typewritten in a word processing program (identify program and platform used), double-spaced, with margins of at least one inch. All parts of the manuscript must be included in a single file on the disk, and the disk file must match the printout. Tables and illustrations are typeset from hard copy and need not be included on the disk. The 3 1/2” disk must be labeled with the first author’s name, an abbreviated article title, the file name, and the first author’s address.
name, the disk format (e.g. Mac), and the word processing software used (e.g. Microsoft Word 6.0).

The first page of the manuscript should contain the following information: (1) title of paper; (2) authors' names; (3) name(s) of Kaiser Permanente Region and medical office in which work was done; (4) name and address of author to whom communications regarding the manuscript should be directed; (5) telephone and fax number of the communicating author.

The second page of a clinical article is to contain an abstract of 250 words or less with a conclusion. Nonclinical articles need only include a brief summary preceding the article. Also list key words and terms, in alphabetical order, under which you believe the article should be indexed.

Begin the text on a new page. Define all abbreviations except those that have been approved by the International System of Units for length, mass, time, electric current, temperature, luminous intensity, and amount of substance. Provide a footnote or box at the beginning of the article to define abbreviations when great numbers of abbreviations are used. Do not create new abbreviations for drugs, procedures, or substrates. Use generic drug names. If a brand name is used, insert it in parentheses after the generic name.

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Illustrations and tables are desirable, and highly encouraged, to expand the value of the article. Tables and illustrations must be cited in order in the text using Arabic numerals. Submit one complete set in glossy prints or high-quality laser prints. Do not staple, clip, or write heavily on the back. Paste a label on the back of each illustration indicating its number in order of appearance, author's name, and the top edge of the picture.

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Each table should be typed on a separate sheet and appropriately numbered. Abbreviations used in the table should be defined in the legend to the table; legends should be typed on the same sheets as the tables.

Any figure, table, or long portions of text that have been previously published must be accompanied by a letter of permission to reprint, signed by the publisher, at the time of submittal. It is the responsibility of the author to obtain such permission.

Legal and Ethical Considerations
Avoid use of patient's names, initials, and health record numbers. A patient must not be recognizable in photographs unless written consent of the subject has been obtained.

References
References must be numbered with Arabic numerals, and cited in the text in numerical order. The reference list at the end of the article must also be in numerical order (do not list references in alphabetical order). The list should be double-spaced, under the heading REFERENCES. Abbreviations for title of medical periodicals should conform to those used in the latest edition of Index Medicus.

Examples.
Journal article, one to four authors

Journal article, more than four authors

Journal article in press

(Note: A copy of the manuscript must be included.)

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Chapter of book

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Contributors are provided with galley proofs and are asked to proofread them for typesetting errors. Important changes in data are allowed, but authors are requested to not make excessive alterations. Galley proofs should be returned within 48 hours.

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- One copy of manuscript
- Title page
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- Author photo (no smaller than 2x3, no larger than 5x7)
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Special thanks to the nearly 80 physicians from all the Permanente Medical Groups who donated their time to participate in focus groups which served to shape The Permanente Journal. Your informed opinions were instrumental.