



The
Permanente Journal

Summer 2003

Volume 7 No. 3

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Management, Part 2**

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and Obesity Symposium**

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Mission: *The Permanente Journal* is written and published by the clinicians of the Permanente Medical Groups and KFHP to promote the delivery of superior health care through the principles and benefits of Permanente Medicine.



On the cover: "Green Woman" by Mitchell M Danesh, MD, is a 9"x12" acrylic on canvas. Dr Danesh experiments with color and form to express abstracted beauty. "By abstracting my perception of an aesthetic, I try to achieve an emotional intimacy and perception of beauty with color and form."

Dr Danesh is the Regional Coordinating Chief of Neurology for Southern California, and is based in Woodland Hills, CA. He recently began sketching and painting and is especially interested in conveying a personal emotional link through the portrait. His wife, Miki, is an artist and is his guide in this endeavor.

More of Dr Danesh's art can be found on pages 8 and 68.

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SPECIAL FEATURE

Weight Management and Obesity Symposium

This second of a two-part symposium is created from material taken from the Care Management Institute and Centers for Disease Control-sponsored symposia and the Northwest Permanente Physicians and Surgeons-sponsored symposium on weight management and obesity. Each presenter spoke, answered questions, and participated in panels discussions in individual areas of expertise, including nutrition, physical activity, cultural competence, cardiovascular implication, etc. The edited transcripts of each speaker are excerpted in this special feature along with other compelling articles, including an overview of CMI's Weight Management and Obesity Initiative.

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■ letters to the editor

From Our Readers

Dear David,

I am a nurse in internal medicine in Falls Church, VA, and wanted to let you know that I think your artwork featured on the cover of *The Permanente Journal* (Spring 2003) is wonderful. I used to work in endoscopy. I can't tell you how many ERCPs I assisted with and then wanted to create something with the catheters and guidewires, but never did. Your form is simple, but the style speaks volumes.

Sincerely,
Lucy Buchness
Falls Church, VA

—Response

Thank you very much for your kind comments. You should grab some of that wire and just "do it."

David Bovill, MD
Orthopaedic Surgeon, TPMG

Dear Dr Felitti,

My name is Sima Gottesfeld; I am the Hebrew lecturer at the University of California at Davis. I am also a medicine and science reporter for a major Israeli daily newspaper, *Maariv*.

It so happened that, only recently, I saw your article about "Sleep Eating" (*The Permanente Journal* Spring 2001;5(2):31-4) and would love to write about it and the whole phenomenon in my newspaper. Would you be so kind and tell me whether there have been any new developments on the subject? I would greatly appreciate your answer.

Sincerely,
Sima Gottesfeld
University of California, Davis

—Response

Sleep Eating is a quite uncommon condition, Ms Gottesfeld. Even knowing about it, and seeing a lot of overweight patients, I see only about one case a year; perhaps a total of a dozen altogether. Of course, we don't actively seek it out so there may be many more unrecognized cases. It is an unusual variant of sleep-walking, and many would consider it a form of dissociation, where one's actions are temporarily separated from usual conscious intent.

All the cases I've seen have been temporally associated with major stresses; of course, obesity itself is a valid sign of this. Almost all the cases have had an association with an earlier sexual abuse history, typically incest. Should you write about this, you will undoubtedly get letters from readers who recognize the condition in people they know. It is different from "night eating" where people awaken and then consciously decide to get something to eat at 2 am, saying they are "hungry." One suspects that in these individuals, there are stressful episodes in non-remembered dream states that act as a trigger, and require soothing by eating. The concept is even built into the language: "Sit down and have something to eat; you'll feel better." Should you write about sleep eating, please send me a copy of your article.

I've not recently checked the world literature on this topic, but you easily could check PubMed. My notes indicate that on April 26, 1993, an NBC afternoon TV broadcast aired titled "People Who Eat in Their Sleep."

I'm impressed that you managed to find this article in The Permanente Journal. Tell me how.

Vincent J Felitti, MD, Editor

Dear Editor,

I was recently introduced to your journal and was very impressed with its style and content. It is refreshing to see a publication that addresses complementary and alternative medicine (CAM). It is becoming increasingly evident that patients are preferring CAM modalities instead of and in addition to traditional Western medicine.

I am writing to share my experiences with magnetic products in the treatment of musculoskeletal and joint discomfort. The article "How can we integrate alternative and mainstream medicine to treat chronic low back pain" by Lydia Segal, MD, in the Fall 2002 issue, touched on the use of magnets in low back pain.

I have personally used magnets on myself and my family to help to alleviate muscle and joint aches and migraines. Several of my patients with chronic low back pain have been helped with the use of magnets placed over the lumbar area. The benefit of using magnets is that there are no side effects.

I am aware of several small studies that show the benefits of magnetic therapy in patients with joint and musculoskeletal discomfort. In fact, a study¹ recently published by Michael Weintraub, MD, from the New York Medical College Department of Neurology demonstrated improvement of carpal tunnel symptoms with the use of a magnetic wrist wrap.

Dr Weintraub has also published a study² on the use of magnetic insoles in the treatment of diabetic neuropathy.

In addition, major universities throughout the country, including University of Virginia, Baylor College, and Vanderbilt University have researched the use of magnets for the treatment of fibromyalgia and depression. Others are actively researching the physiologic effects of magnets.

Although the basic science of why and how magnets work is still unknown, we should consider using magnetic technology in our arsenal of treatment for refractory conditions affecting the neck, shoulders, back, and knees. Patients should understand that only limited data show its benefit and mode of action. In an age when morbidity and mortality from prescription medications are climbing, magnets provide a noninvasive alternative that can potentially improve the quality of life for many patients.

As a final note, not all magnets are the same. In fact, magnets that are sold over the counter usually do not contain enough electromagnetic energy to benefit patients. I have used high-quality magnetic products with great success.

Thank you for your attention.
Rahel T Ruiz, MD
University of California, Davis

—Response

The evidence for use of magnets in low back pain is limited, which is why it was not included in the piece that I wrote. Most evidence is for nerve-related back pain, such as postpolio syndrome and diabetic neuropathy. There is little to no evidence supporting use of magnets for general mechanical back pain.

Additionally, I have found no evidence that one magnet, assuming it is of 1000 gauss strength, is any better than another. When my patients want to try magnets, I steer them away from the big-name brands. I often suggest they first ask to borrow one from a friend or neighbor before purchasing their own.

Lydia S Segal, MD, MPH
Regional Manager - Integrative Medicine
Mid-Atlantic States Medical Group

References

1. Weintraub MI, Cole SP. Neuromagnetic treatment of pain in refractory carpal tunnel syndrome: an electrophysiological and placebo analysis. *Journal of Back and Musculoskeletal Rehabilitation* 2000;15(2/3):77-81.
2. Weintraub MI, Wolfe GI, Barohn RA, et al. Static magnetic field therapy for symptomatic diabetic neuropathy: a randomized, double-blind, placebo-controlled trial. *Arch Phys Med Rehabil* 2003 May;84(5):736-46.



Let us hear from you.

We encourage you to write, either to respond to an article published in the *Journal* or to address a clinical issue of importance to you. You may submit letters by mail, fax or e-mail.

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Abstracts of Articles Authored or Coauthored by Permanente Clinicians

Selected by Louise Williams, PhD, Center for Health Research

From Northern California:

Ethnic and racial differences in diabetes care: the insulin resistance atherosclerosis study

Bonds DE, Zaccaro DJ, Karter AJ, Selby JV, Saad M, Goff DC, Jr. *Diabetes Care* 2003 Apr;26(4):1040-6.

OBJECTIVE: Diabetes and its complications disproportionately affect African Americans and Hispanics. Complications could be prevented with appropriate medical care. We compared five processes of care and three outcomes of care among African Americans, Hispanics, and non-Hispanic whites.

RESEARCH AND DESIGN METHODS: We used data from the Insulin Resistance Atherosclerosis Study (1993-1998) of participants with known diabetes. African Americans and Hispanics were compared with non-Hispanic whites from the same region. Five process measures (treatment of diabetes, hypertension, hyperlipidemia, albuminuria, and coronary artery disease) and three outcome measures (control of diabetes, hypertension, and hyperlipidemia) were evaluated.

RESULTS: Comparison groups were similar in baseline characteristics. African Americans and Hispanics were equally likely as their non-Hispanic white comparison group to receive treatment for diabetes, hypertension, hyperlipidemia, albuminuria, and coronary artery disease, although treatment rates for hyperlipidemia and albuminuria were poor for all groups. African Americans were more likely to have poorly controlled diabetes (HbA_{1c} >8.0%: OR 2.23, 95% CI 1.26-3.94). Both African Americans and Hispanics were significantly more likely to have borderline or poorly controlled hypertension than non-Hispanic whites (blood pressure >130-140/85-90 or >140/90 mmHg: African American/non-Hispanic white OR 3.22, 95% CI 1.57-6.59; Hispanic/non-Hispanic white 3.14, 1.35-7.3).

CONCLUSIONS: The rates of treatment for diabetes and associated comorbidities are similar across all three ethnic groups. Few indi-

viduals in any ethnic group received treatment for hyperlipidemia and albuminuria. Ethnic disparities exist in control of diabetes and hypertension. Programs should be tested to improve overall quality of care and eliminate these disparities.

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From the Northwest:

Slow response to loss of glycemic control in type 2 diabetes mellitus

Brown JB, Nichols GA. *Am J Manag Care* 2003 Mar;9(3):213-7.

BACKGROUND: To achieve glycemic control in type 2 diabetes mellitus, the American Diabetes Association (ADA) recommends intensification of glucose-lowering therapy when the glycosylated hemoglobin (HbA_{1c}) level exceeds 8.0%.

OBJECTIVE: To study glycemic control before and after initiation of secondary antihyperglycemic therapy to better understand the pace and patterns of therapeutic failure and clinical responses to failure.

STUDY DESIGN: A retrospective, population-based observational study.

PATIENTS AND METHODS: From a 12-year-old diabetes registry of members of Kaiser Permanente Northwest, a large group-model HMO, we tracked the glycemic control histories of all 570 registrants who, in 1998, added metformin therapy to sulphonylurea monotherapy.

RESULTS: The last HbA_{1c} level before metformin use averaged 9.4%. Metabolic decompensation accelerated over time. Patients typically spent numerous months at and had several measurements of HbA_{1c} >8.0% before a final glycemic spike to >9.0%. Persons experiencing more gradual failure accumulated greater glycemic burdens before changing therapy.

CONCLUSIONS: The level of HbA_{1c} that seemed

to trigger glucose-lowering action was 9.0% or higher, not 8.0% as recommended by the ADA. A substantial hyperglycemic peak preceded change in therapy even in this relatively tightly controlled population with type 2 diabetes mellitus. Earlier therapeutic changes, but not more frequent testing, would prevent the glycemic excursions we observed. Low mean HbA_{1c} levels in populations do not necessarily indicate that loss of glycemic control is being rapidly addressed for most patients. More research is needed to estimate the impact of these peaks on current well-being and future complications.

CLINICAL IMPLICATION: KP and KPNW have some of the highest HEDIS scores in the nation for quality of diabetes care. We were therefore surprised to discover that, looking backward from new metformin prescriptions, most members reached HbA_{1c} levels well above 9.0% before starting the drug. Sizable glycemic burden can accumulate when we do not react quickly to failures of antihyperglycemic therapies. Now that our members with diabetes are living longer—thanks to aggressive cardiovascular disease prevention and treatment—glycemic excursions have more time to cause harm in the form of serious renal, retinal, and neuropathic disease. Just measuring the HbA_{1c} is not enough. —JB

From Northern California:

Evaluation of a nurse-care management system to improve outcomes in patients with complicated diabetes

Taylor CB, Miller NH, Reilly KR, et al. *Diabetes Care* 2003 Apr;26(4):1058-63.

OBJECTIVE: This study evaluated the efficacy of a nurse-care management system designed to improve outcomes in patients with complicated diabetes.

RESEARCH AND DESIGN METHODS: In this randomized controlled trial that took place at Kaiser Permanente Medical Center in Santa Clara, CA, 169 patients with longstanding diabetes, one or more major medical comorbid conditions, and HbA_{1c} >10% received a special intervention (n = 84) or usual medical care (n = 85) for one year. Patients met with a nurse-care manager to establish individual outcome goals, attended group sessions once a week for up to four weeks, and received telephone calls to manage medications and self-care activities. HbA_{1c}, LDL, HDL, and total cholesterol, triglycerides, fasting glucose, systolic and diastolic blood pressure, BMI, and psychosocial factors were measured at baseline and one year later. Annualized physician visits were determined for the year before and during the study.

RESULTS: At one year, the mean reductions in HbA_{1c}, total cholesterol, and LDL cholesterol were significantly greater for the intervention group compared with the usual care group. Significantly more patients in the intervention group met the goals for HbA_{1c} (<7.5%) than patients in usual care (42.6 vs 24.6%, P < 0.03, chi(2)). There were no significant differences in any of the psychosocial variables or in physician visits.

CONCLUSIONS: A nurse-care management program can significantly improve some medical outcomes in patients with complicated diabetes without increasing physician visits.

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From Southern California:
Inhaled corticosteroids and allergy specialty care reduce emergency hospital use for asthma

Schatz M, Cook EF, Nakabiro R, Petitti D. *J Allergy Clin Immunol* 2003 Mar;111(3):503-8.

BACKGROUND: The interrelationships between optimal inhaled corticosteroid (IC) therapy, allergy specialist care, and reduced emergency hospital care for asthma have not been well defined.

OBJECTIVE: We sought to evaluate the independent effectiveness of various levels of IC

dispensing and allergy specialist care in reducing subsequent emergency asthma hospital use.

METHODS: Asthmatic patients (n = 9608) aged three to 64 years were identified from an electronic database of a large health maintenance organization. The outcome was any year 2000 asthma hospitalization or emergency department visit. The main predictors were at least one allergy department visit and the number of IC canisters dispensed in 1999. Analyses were adjusted for age, sex, insurance type, and asthma severity (1999 emergency asthma hospital use, beta-agonist use, and oral corticosteroid use).

RESULTS: Dispensing of seven or more canisters of ICs (odds ratio [OR], 0.64; 95% CI, 0.43-0.94) and allergy care (OR, 0.73; 95% CI, 0.55-0.97) were associated with reduced subsequent emergency asthma hospital use. More patients with allergy specialist care than those without such care received seven or more dispensations of ICs (24.7% vs 8.3%, P < .001). When seven or more dispensations of ICs and allergy specialist care were simultaneously included in an adjusted model, both ICs (OR, 0.68; 95% CI, 0.46-1.00) and allergy care (OR, 0.77; 95% CI, 0.58-1.02) were independently associated with a lower risk of year 2000 emergency asthma hospital care, although significance was borderline.

CONCLUSION: Allergy care reduces emergency hospital use for asthma by increasing use of ICs but probably also has an independent effect.

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CLINICAL IMPLICATION: I believe there are two important practical lessons in this article. The first is that inhaled steroids can be shown to reduce emergency hospital care requirements for asthma, but only if patients take them regularly. The second is that referral of patients with more severe asthma to allergists can improve their outcomes, probably above and beyond the effects of optimal inhaled steroid therapy. —MS

From Southern California:
Irritable bowel syndrome, health care use, and costs: a US managed care perspective

Longstreth GF, Wilson A, Knight K, et al. *Am J Gastroenterol* 2003 Mar;98(3):600-7.

OBJECTIVE: We performed an evaluation of patient symptoms, health care use, and costs to define the burden of illness of irritable bowel syndrome (IBS) and the relation to the severity of abdominal pain/discomfort in a large health maintenance organization.

METHODS: All 6500 adult health maintenance organization members who had undergone flexible sigmoidoscopy in the year 2000 were mailed a questionnaire that elicited Rome I symptom criteria and severity ratings for abdominal pain/discomfort. Multiple health care use measures were obtained from various administrative databases. IBS patients were compared with a control group of non-IBS subjects, and analyses were adjusted for age and sex.

RESULTS: We received 2613 (40.2%) responses. Compared with non-IBS subjects over two years, IBS patients had more outpatient visits (medical, surgery, and emergency, p < 0.05), were hospitalized more often (p < 0.05), and had more total outpatient prescriptions (p < 0.05) and IBS-related prescriptions (p < 0.05). Over one year, total costs were 51% higher in IBS patients, who also had higher costs for outpatient visits, drugs, and radiology and laboratory tests (p < 0.05). Total costs were increased by 35%, 52%, and 59% in IBS patients with mild, moderate, and severe symptoms of abdominal pain/discomfort compared with non-IBS subjects (p < 0.05).

CONCLUSIONS: Using Rome I symptom criteria, we found that IBS is associated with a broad pattern of increased health care use and costs. The severity of abdominal pain/discomfort is a significant predictor of health care use and costs for patients with IBS compared with non-IBS subjects.

Reprinted from *American Journal of Gastroenterology*, Vol 98, Longstreth GF, Wilson A, Knight K, et al, *Irritable bowel syndrome, health care use, and costs: a US managed care perspective*, 600-7, Copyright 2003, with permission from American College of Gastroenterology.

CLINICAL IMPLICATION: Although IBS has long been regarded by many physicians as unimportant, recent research has revealed it causes an adverse effect on quality of life as great as that of common organic diseases. This study emphasizes the high direct medical costs attributable to this chronic disorder. These "high utilizers" may have contributing psychosocial issues, and they seek care for multiple functional somatic syndromes. They are even predisposed to undergo surgery, including cholecystectomy and hysterectomy. Therefore, minimizing costs while satisfying patients demands a lot from practitioners. Management of IBS in most patients should comprise a symptom-based diagnosis, limited testing, explanation, reassurance, attention to psychosocial issues and symptom-directed treatment. –GL

From Colorado:

Evaluation of the clinical and economic impact of a brand name-to-generic warfarin sodium conversion program

Witt DM, Tillman DJ, Evans CM, Plotkin TV, Sadler MA. *Pharmacotherapy* 2003 Mar;23(3):360-8.

BACKGROUND: Substitution of generic warfarin initially was discouraged because of concerns regarding therapeutic failure or toxicity. Although subsequent research with ABRATED (ie, bioequivalent) warfarin did not confirm initial concerns, the issue is not settled for all clinicians.

OBJECTIVES: We sought to provide additional information regarding the clinical and economic impact of warfarin conversion by analyzing a real-life sample of patients receiving long-term anticoagulation therapy who were switched from brand name to generic warfarin.

METHODS: Patients who had been taking warfarin for at least 180 days and had received uninterrupted oral anticoagulation 90 days before and 90 days after switching to generic warfarin were included. The switch date was based on the first time generic warfarin was dispensed from our pharmacies. The primary end point was the calculated amount

of time each patient's international normalized ratio (INR) values were within the patient-specific target INR range in the 90 days before and after the switch. Data regarding adverse events and medical resource utilization were also collected. Pharmacoeconomic analyses were performed.

RESULTS: The analysis included 2299 patients. The overall difference in calculated time INR values were below (22.6% before vs 26.1% after switch, $p < 0.0001$) and within (65.9% before vs 63.3% after switch, $p = 0.0002$) the therapeutic INR range was statistically but not clinically significant. Only 28.0% of patients experienced a change in therapeutic INR control of 10% or less, 33.1% experienced INR control that improved by greater than 10%, and 38.9% experienced INR control that worsened by more than 10%. The difference in total treatment costs associated with brand name and generic warfarin was 3128 dollars/100 patient-years in favor of the generic product. Sensitivity analyses revealed that cost savings associated with warfarin conversion in this health care system were highly dependent on the difference between warfarin costs and cost of treating anticoagulation-related adverse events.

CONCLUSIONS: Most of these patients were successfully switched from brand name to generic warfarin. However, supplemental INR monitoring is warranted when one warfarin product is substituted for another to allow timely detection of those patients who experience significant changes in anticoagulation response.

CLINICAL IMPLICATION: Our study demonstrates that even though global measures of anticoagulant control (eg, mean INR) show minimal differences, a substantial number (72.0%) of patients will experience greater than a 10% change in therapeutic INR control following the switch to generic warfarin. Accordingly, we recommend that patients should utilize a single warfarin product whenever possible. Furthermore, clinicians should err on the side of caution and additional INR monitoring should occur in the days and weeks following substitution of one warfarin product for another to allow timely detection of those patients who experience significant changes in anticoagulant response. –DW

From Colorado:

A survey of herbal use in children with attention-deficit-hyperactivity disorder or depression

Cala S, Crismon ML, Baumgartner J. *Pharmacotherapy* 2003 Feb;23(2):222-30.

OBJECTIVE: To examine whether herbal medicines were given to children or adolescents receiving care for attention-deficit-hyperactivity disorder or depression.

METHODS: Between October 2000 and July 2001, a 23-item questionnaire was administered in five community mental health centers in Texas. Parents or primary caregivers of children who received a psychiatric assessment were sought for participation. One hundred seventeen caregivers completed a questionnaire. The main outcome measure was primary caregivers' self-report of the use of herbal therapy in their children.

RESULTS: The lifetime prevalence of herbal therapy in patients was 20% (23 patients). Eighteen patients (15%) had taken herbal medicines during the past year. Recommendations from a friend or relative resulted in the administration of herbal medicines by 61% of 23 caregivers. Herbal medicines were given most frequently for a behavioral condition, with ginkgo biloba, echinacea, and St John's wort most prevalent. Almost 83% of caregivers gave herbal medicines alone, whereas 13% gave herbal medicines with prescription drugs. Most caregivers (78%) supervised the administration of herbal therapy in their children; the children's psychiatrists (70%), pediatricians (56%), or pharmacists (74%) typically were not aware of the use.

CONCLUSIONS: Most caregivers supervised herbal therapy in their children, without communication with a health professional. A need exists for better communication between health professionals and caregivers regarding the use of herbal therapy.

CLINICAL IMPLICATION: Important practice lesson: Parents of children with psychiatric disorders may be administering herbal remedies to their children without supervision of a physician or pharmacist. It is important for health care providers to inquire about the use of herbals in their patients. –SC

From the Northwest:

Tobacco use patterns and attitudes among teens being seen for routine primary care

Hollis JF, Polen MR, Lichtenstein E, Whitlock EP. Am J Health Promot 2003 Mar-Apr;17(4):231-9.

PURPOSE: To describe the tobacco-related attitudes, behaviors, and needs of smoking and nonsmoking teens being seen for routine pediatric care and to identify predictors of tobacco use.

DESIGN: Cross-sectional survey of adolescent primary care patients who completed self-administered questionnaires in medical office waiting rooms while waiting for routine care visits.

SETTING: A group-practice HMO in the Pacific Northwest.

SUBJECTS: A sample of 2526 teenagers, ages 14 to 17, who consented to receive health promotion interventions as a part of a randomized trial in seven pediatric and family practice offices.

MEASURES: A 38-item questionnaire assessed tobacco use history, attitudes, quit attempts,

and stage of acquisition or cessation along with gender, age, race/ethnicity, body mass index, educational plans, frequency of exercise, attempts to lose weight, and depressed mood.

RESULTS: Sixty-seven percent of teens approached (2526 of 3747) consented to complete a questionnaire and receive tobacco- or diet-related interventions as a part of their medical visit. About 23% of teen patients reported smoking at least one cigarette in the last month, although only 14% described themselves as current “smokers.” Most current smokers (84%) smoked at least 20 days in the last month. Logistic regression predictors of smoking included older age, Native American ethnicity, lower educational aspirations, lower body mass index, smoking among half or more friends, smokers at home, and a positive depression screen. Among ever-regular smokers, most were in the action (28%), preparation (21%), or contemplation (22%) readiness to quit smoking stages, and 77% of current smokers had made one or more serious quit attempts in the last year.

CONCLUSIONS: Most teens in these medical fa-

cilities consented to receive tobacco and diet interventions, and most self-described current smokers were contemplating or preparing to quit. Medical visits provide attractive opportunities for tobacco intervention, but messages should be tailored based on the patient’s tobacco status and stage of acquisition or cessation.

CLINICAL IMPLICATION: One in four teens smokes, but few report receiving prevention or cessation assistance from clinicians. Most teens in this study were open to brief counseling during visits, and 71% of those who smoked were interested in quitting. Almost half were either trying to quit or preparing to quit within a month. Teens were more likely to admit they smoked (23% vs 14%) if asked “Have you smoked a cigarette within the last 30 days?” than if asked “Do you currently smoke?” Clinicians should attempt to determine how likely teens are to start or quit smoking, and tailor their messages accordingly. —JH ❖

A Perfect Fit

For the combination of teaching, clinical practice, the ability to do clinical research if you want to work hard and spend extra time, and the fact that you don’t have to worry about the business aspects—those four things made TPMG a perfect fit for me. That’s why I’m 75 years old and I’m still hanging in there.

Edgar Schoen, MD, on why he spent his entire career with TPMG and remains on staff today. (2001)

soul of the healer



"Pierre-Auguste Renoir"
acrylic on canvas paper
By Mitchell Danesh, MD

More of Dr Danesh's art can be found on the cover and on page 68.

Weight Management and Obesity Symposium

Scott Gee, MD, advocates for early assessment
and intervention in preventing overweight and obesity

A Pound of Prevention ... Is Worth a Ton of Cure

In the United States, the prevalence of overweight and obesity (body mass index (BMI) \geq 25) among adults reached 64.5% in 1999-2000.¹ Kaiser Permanente (KP) has taken a proactive response to the epidemic of obesity.² This issue of *The Permanente Journal* highlights recent advances in treatment of obesity in adults and current activities in different KP regions. In the article "Obesity Research: Winning the Battle, Losing the War,"³ (page 11) the authors detail effective weight management interventions from the recent literature and how the health care industry must respond to the epidemic of obesity as they have with the treatment of chronic conditions. This article also describes the chronic nature of obesity and the need for long-term weight maintenance strategies. Comprehensive, moderate-intensity weight management interventions with long-term maintenance have significant costs, which will need to be financed by the health care industry or by consumers. Americans already spend millions of dollars each year on weight loss strategies. With the staggering cost of obesity and the challenges of treatment and relapse, the importance of prevention becomes clear.

Obesity, like many other health conditions, begins very early in life and in most cases can be prevented. From the early 1960s to the late 1990s, prevalence of overweight among children and adolescents more than tripled.⁴ Overweight children are at risk for becoming obese adults. About a third of overweight preschool children and half of overweight school-age children remain overweight as adults.⁵ The risk for becoming an overweight child or adult can begin during pregnancy with additional risk factors throughout life. Pre-

natal risk factors for childhood overweight include being small (SGA) or large for gestational age (LGA).⁶ Appropriate weight gain during pregnancy,⁷ glycemic control, and tobacco cessation are some of the prenatal strategies to prevent SGA and LGA. During infancy, breastfeeding may provide some protection against childhood overweight.⁸ Adiposity and BMI decline from infancy and reach a nadir between five and six years of age. Children who reach this nadir earlier (early adiposity rebound) are at increased risk of becoming obese adults.⁹ The diagnosis of early adiposity rebound using BMI represents an important early intervention strategy to prevent overweight in childhood and adulthood. A recent review of the literature identified several key strategies for preventing overweight during childhood and adolescence.¹⁰ These strategies included increasing PE and recreational physical activity and decreasing television viewing and sweetened-beverage consumption. During early adulthood, the average weight gain is approximately 1.8-2.0 pounds/year. Weight maintenance by making small improvements in physical activity or portion sizes are key strategies for preventing obesity among young adults.¹¹ Weight maintenance for a young adult requires a 100 kcal/day deficit compared with a 300-1000 kcal/day deficit required to produce a 10% weight loss in six months for an obese adult. It is therefore much easier and less costly to prevent obesity than to treat obesity. A longitudinal approach to preventing obesity is shown below.

Preventing obesity must begin with conception. BMI and other risk factors must be tracked throughout life and effective weight management interventions must



Scott M Gee, MD

| A longitudinal approach to preventing obesity | | | | |
|--|--|---|---|--|
| Fetus → | Infants → | Toddlers → | Children → | Adults |
| <i>Preventing:</i> <ul style="list-style-type: none"> • SGA • LGA | <i>Promoting:</i> <ul style="list-style-type: none"> • Breastfeeding | <i>Diagnosing:</i> <ul style="list-style-type: none"> • Early adiposity rebound | <i>Increasing:</i> <ul style="list-style-type: none"> • Physical activity <i>Decreasing:</i> <ul style="list-style-type: none"> • TV viewing • Sweetened beverage consumption | <i>Increasing:</i> <ul style="list-style-type: none"> • Physical activity <i>Decreasing:</i> <ul style="list-style-type: none"> • Portion size <i>Encouraging:</i> <ul style="list-style-type: none"> • Weight maintenance |

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be directed at different age groups. Early interventions are less intensive and less costly than weight management interventions later in life. KP's integrated structure and information technology systems provide a unique advantage to accomplish this goal. Every physician, nurse, and medical assistant must play a role in preventing and treating of obesity. Physicians and other clinical practitioners can provide lifestyle advice to all patients, identify patients at risk using BMI, and provide counseling to motivate and reinforce behavior change. Environmental changes in homes, schools, worksites, and communities are also needed to facilitate long-term behavior change. Health professionals can play a key role in making environmental changes in schools, communities, and worksites. The health care industry must balance resources between prevention and treatment to manage the obesity epidemic effectively. Past success in reducing tobacco use provides a framework for addressing the obesity epidemic and gives hope for the future. ❖

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Life Goes Not Backward

You may strive to be like them, but seek not to make them like you.
For life goes not backward nor tarries with yesterday. You are the
bows from which your children, as living arrows, are sent forth.

The Prophet, 1923, Kahlil Gibran, 1883-1931, Lebanese poet, philosopher, and artist

Weight Management and Obesity Symposium

*Thomas Vogt, MD, MPH, and Victor Stevens, PhD,
discuss the need to treat obesity as a chronic disease*

Obesity Research: Winning the Battle, Losing the War

By Thomas M Vogt, MD, MPH
Victor J Stevens, PhD

Abstract

Diabetes and obesity have increased dramatically in the United States during the past quarter century and are having a profound, negative impact on morbidity, mortality, quality of life, and cost of medical care. New research confirms that diabetes can be prevented or delayed through aggressive weight management. After years of discouraging reports on the failure of weight management programs to produce sustained weight loss, several approaches are now known to contribute to long-term weight control. However, despite this good news, most weight control programs—those housed within medical care systems—are of low quality, have inadequate resources, and are not accountable for their results. Moreover, most of these programs are not covered benefits and are instead treated as optional public relations services instead of as integral parts of medical care. Most clinical advice and counseling about weight and diet is delivered to patients sporadically, briefly, inexpertly, and only after clinically significant morbidity is already present. Ironically, assessment of weight occurs almost to the point of obsession but with little meaningful follow-up. Given the magnitude of the problem as well as the new, encouraging research findings, programs—those housed within medical care systems generally and in Kaiser Permanente (KP) must become as proactive in treating obesity as the organization already is in treating hypertension and heart failure: We must treat obesity as a chronic disease. To reduce morbidity and mortality and to improve quality of life for patients with obesity, health care practitioners must correctly apply effective, available remedies for this chronic disease.

Introduction

The United States is undergoing an epidemic of diabetes and obesity with profound consequences on our health and on health care costs.^{1,3} This epidemic cannot be addressed without involving patients and health care systems in an effective, integrated approach to managing the lifestyle behavior that leads to the problem.⁴ The

exciting findings of the Diabetes Prevention Study⁵ and of the Diabetes Prevention Program⁶ make clear that Type II diabetes is a preventable disease and that—after many years of disappointing efforts—we have at last begun to identify components of effective obesity maintenance intervention.^{7,8} Identification of approaches that lead to sustained, long-term

weight loss is a wakeup call to health care systems that have generally neglected weight management, particularly for their patients who are not already ill with obesity-related conditions such as diabetes, cardiovascular, and musculoskeletal diseases. KP members incur an enormous burden from obesity-related morbidity and mortality as well as from the enormous cost of treating the resulting preventable diseases.

Consequences of Obesity

Obesity has not been treated systematically in medical care systems, although treating its comorbid conditions without preventing and treating the obesity itself could be considered unethical.⁹ Nonetheless, treatment of obesity is the cornerstone of both diabetes care⁹ and diabetes prevention.^{5,6} Two of every three diabetic patients are overweight,¹⁰ and obesity is increasing rapidly throughout the United States.¹¹⁻¹³ Weight loss reduces medical costs; improves control of glycemia, lipoproteinemia, and blood pressure;¹⁴ and reduces mortality risk among patients with diabetes.¹⁵ The economic burden of obesity may exceed \$100 billion per year.¹⁶ Weight management requires a life-long commitment to healthy eating practices as well as to daily physical activity.¹⁷ Regaining weight after successful completion of a drug

... treatment of obesity is the cornerstone of both diabetes care and diabetes prevention.

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with diet and exercise program is common, mainly because of the scarcity of adequate programs for maintaining weight loss.¹⁸

Disparate Racial and Ethnic Distribution of Obesity and Diabetes

The population of Hawaii is one of the world's most ethnically diverse and includes whites (21.8%), Japanese (19.1%), Native Hawaiians/part-Hawaiians (19.4%), Filipinos (12.6%), Chinese (3.9%), Other (8.3%), and mixed (15.0%).¹⁹ About two thirds of Hawaii's Native Hawaiians, Filipinos, and Japanese—and about half of Hawaii's whites—maintain a sedentary lifestyle.²⁰ In Hawaii, 46% of Native Hawaiians are obese compared with 24% of the general population of Hawaii.²⁰ In Hawaii, diabetes among people aged 36 to 64 years is more than twice as prevalent among Native Hawaiians as in non-Hawaiian residents, and diabetes among people older than 65 years is about one-and-one-half times as prevalent in Native Hawaiians as in non-Hawaiian residents.²⁰ Native Hawaiians are the only US ethnic group with a life expectancy below 70 years (68 years),²⁰ and obesity and diabetes are the primary reason. Filipinos and Japanese in Hawaii also have high rates of diabetes.²⁰ Among KP members in Hawaii, excellent health is

self-reported by 27% of whites, by only 17% of Japanese and Filipinos, and by only 13% of Native Hawaiians. Poor health is self-reported by 11% of whites, 18% of Hawaiians, 19% of Japanese, and 21% of Filipinos. If this disparity among ethnic groups in Hawaii and among similar groups in other parts of the United States is to be effectively addressed, health care systems must pay attention to race, culture, and personal habits of patients.

Weight Control Programs Can be Cost-effective for Health Care Systems

The cost of losing a kilogram of weight in an intensive, long-term, very-low-calorie diet program has been estimated at \$630.²¹ Despite strong evidence of benefit from sustained weight loss,^{22,23} few data balance the cost against medical care utilization rates. Research is needed to estimate the impact of various weight management programs and their cost against change in medical care utilization levels.

Whatever the program and whatever its cost, one fact remains: Ineffective programs and half-hearted interventions are the most costly of

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all because they don't produce change. In a one-year pilot program for weight loss among 200 obese patients whose body mass index (BMI) ranged from 30 to 56, 72% remained in contact and at least partially complied with recommended lifestyle changes after 12 months. Medical care

savings per patient equaled \$380 for the year.²⁴ Despite the cost of these programs, obese and diabetic patients use about three to four times more medical care resources than the average Health Plan member. Thus, even expensive interventions are cost-effective if they help patients to lose weight and to maintain this weight loss.

Weight Control Interventions that Lead to Sustained Weight Loss

Two major barriers are encountered by health systems attempting to implement effective weight management programs: 1) the myth that no program is effective in the long term; and 2) failure to integrate lifestyle issues into our medical care paradigm. We talk about lifestyle but are not accountable for addressing it in the way that we are accountable for treating hypertension. Consequently, assistance with weight management is not standard medical practice. Table 1^{4,7,8,21,25-52} shows obesity intervention components that have been associated with sustained weight loss. If included in serious, high-quality, appropriately funded programs, these effective interventions could reduce the number of morbid and mortal outcomes from obesity.

| Intervention | Selected references |
|--|---------------------------------------|
| Physical activity | 7, 21, 25, 26, 27, 28, 29, 30, 31, 32 |
| Very-low-calorie diet | 7, 8, 33, 34 |
| Case management | 4, 25, 30, 35, 36 |
| Social support | 37, 38, 39, 40 |
| Number of contacts and length of maintenance | 41, 42, 43, 44, 45, 46 |
| Group approaches | 47 |
| Low-fat diet | 8, 48, 49 |
| Achievement of initial weight loss >20 kg | 8, 50, 51 |
| Relapse prevention/personal strategies | 37, 49, 52 |

Note: Bariatric surgery is effective but applicable to only a small group of extremely obese persons and is not included in this discussion.

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Table 2. Patterns of weight measurement and dietary counseling among 774 adults in a large HMO, 1992-1996

| Service | Cost ^a | Total, 5 years | No. person per year | Total No. for 5 Years | | | | | |
|---------------------------------------|-------------------|----------------|---------------------|-----------------------|-----|-----|------|-------|-----|
| | | | | 0 | 1-2 | 3-5 | 6-10 | 11-20 | >20 |
| Weight measurement | \$2.40 | 14111 | 3.6 | 25 | 47 | 78 | 121 | 233 | 270 |
| Any diet/obesity advice or counseling | \$11.13 | 1320 | 0.3 | 360 | 218 | 139 | 45 | 12 | 0 |

^a Measured in 1996 dollars. Weight based on one minute of RN time; advice based on mean two-minute interaction during a primary care visit or four-minute interaction with trained counselor plus video. Most clinic exchanges about diet are shorter, and referrals to dietitians and weight programs are longer.

Physical Activity

Exercise clearly improves outcome of behavioral weight management programs. One third of deaths from cardiovascular disease and diabetes may result from physical inactivity.^{53,54} Sedentary lifestyle is also an important risk factor for cancer.⁵⁵⁻⁵⁷ In the United States, about 60% of adults are inadequately physically active, and one quarter report engaging in no physical activity at all.⁵⁸ The Surgeon General's Report on Physical Activity and Health⁵⁸ makes clear the importance of physical activity in reducing morbidity and identifies promising strategies for intervention. Health care systems have a critical role in promoting physical activity and disease management strategies needed to foster physical activity among diabetic patients.²⁵

The Diabetes Prevention Program clearly showed the importance of exercise in diabetes prevention.²⁶ Physical activity counseling by physicians affects patient exercise levels,⁵⁹⁻⁶² but more research is needed on how to incorporate exercise counseling into the medical setting.⁶³ The Physician-based Assessment and Counseling for Exercise (PACE) Program^{63,64} trained physicians to counsel patients about diet, weight, and physical activity, but physicians have little time to add behavioral counseling. Physical activity counseling is as effective as structured exercise programs for increasing physical activity.⁶⁵ Medical systems need effective system support pro-

grams endorsed by physicians but delivered by nonphysician support staff who are specifically trained for the task.

The most effective weight loss programs include exercise as an integral part of their approach.^{28,66-69} One very-low-calorie diet program²¹ showed that four-and-a-half years after treatment, continuing exercisers had 7.4 times as much weight loss (mean loss of 21 lb [9.53 kg]) as those who did not exercise (mean loss of 2.9 lb [1.3 kg]). Blair et al^{70,71} developed a lifestyle approach to increasing physical activity based on the Stages of Motivational Readiness Model⁷² and on the Social Cognitive Theory Model.⁷³ A similar approach has been widely used by Stevens et al^{66-68,74} in research programs. Barriers to engaging in physical activity have been widely studied, as have interventions designed and tested to overcome those barriers.⁷⁵⁻⁷⁹ Successful approaches to adopting a physically active lifestyle assure that the individual 1) perceives a net benefit; 2) chooses an enjoyable activity; 3) feels competent in doing the activity; 4) can easily access the activity on a regular basis; 5) can fit the activity into the daily routine; 6) perceives no major financial or social cost to the activity; 7) experiences few negative consequences (eg, injury or ridicule) from the activity; and 8) can successfully resolve any competing time demands.²⁹

Although physicians have been

encouraged to counsel their patients on exercise, physicians are less likely to counsel patients about exercise than about smoking and other health behaviors.^{60,80,81} Ethnicity may influence whether advice and counseling are provided. In the KP Hawaii Region, Filipinos are less likely to be counseled by their physicians about physical activity than are other ethnic groups.³³ The PACE program⁶⁴ assisted clinicians in counseling their patients to overcome barriers to exercise. The INSURE Project on Lifecycle Preventive Health Services was effective for promoting adoption of high levels of exercise 12 months after intervention⁵⁹ and showed that brief advice sessions in the medical office (similar to effective smoking intervention in the medical office) increases patients' total weekly minutes of exercise.

The Very-Low-Calorie Diet (VLCD)

Behavioral and cognitive intervention approaches combined with a very-low-calorie diet (VLCD) and a chronic disease case management model may be the most effective strategy for helping patients to lose weight and maintain that weight loss. Contrary to the pessimism of many clinicians and researchers, effective long-term weight loss can be achieved,⁷ and the components of successful maintenance programs are gradually emerging. The VLCD approach is associated with

The most effective weight loss programs include exercise as an integral part of their approach.

greater initial weight loss and maintenance of weight loss than are low-energy, balanced diets and may be associated with better sustained weight loss.⁸ Participants in the wellness program in the KP Southern California Region, Positive Choice, achieved a mean weight loss of 57 lbs (25.9 kg) during a six-month intervention.³⁴ Walsh and Flynn²¹ reported a mean initial weight loss of 59.8 lbs (27.1 kg) for men and 42.4 lbs (19.2 kg) for women. Brief periods of VLCD are “associated with successful weight control in a substantial portion of patients several years after treatment.”^{82:abstract}

Relapse Prevention

The Relapse Prevention Model⁵² combines applied behavioral analysis, social learning theory, models of stress and coping, and strategies for responding to temptation and brief lapses in adherence to behavior change efforts. The Relapse Prevention Model focuses on avoiding situations that lead to lapses or relapse (antecedents) and on identifying and practicing alternative coping strategies (eg, avoidance, adaptation, adopting new constructive behaviors). The Relapse Prevention Model involves learning and practicing cognitive (influencing thoughts) as well as behavioral (learning and applying skills) approaches.^{37,83} Development of personalized strategies for maintaining weight loss is associated with long-term maintenance of weight loss.⁸⁴

Social Support

Social support interventions maintain behavior change through social relationships and interpersonal interactions³⁸ and emphasize ex-

change of information, advice, suggestions, empathy, and caring among close friends, family, and others facing the same challenges (eg, trying to change diet, to increase exercise, or to quit smoking). Social support intervention includes small-group sessions with varying degrees of structure and professional guidance as well as other forms of support, such as one-to-one meetings, “buddy systems” (pairing up), and telephone contacts. Social support intervention and support from family and friends improve the effectiveness of weight loss maintenance.^{39,40,84,85} Relapse prevention and social support approaches are not mutually exclusive but represent two distinct emphases in strategies to enhance maintenance of behavior change. Because they include activities based on each person’s unique situation, these strategies are ideally suited for application in multiethnic, multicultural populations.

Case Management of Obesity as a Chronic Disease

Obesity is a chronic disease requiring long-term care.^{35,41,42,86} Seven of nine diabetes studies showed that chronic care management reduces health care use and costs of care.⁴ The failure of the medical care system to effectively address obesity arises, in part, from reluctance of medical systems to undertake expensive, long-term financial commitment for care that may be too costly to sustain. However, abundant data now show the effectiveness of health systems in changing risk-related behavior. Treatment programs must involve medical systems and must include a variety of health professionals—including physicians, dietitians, exercise physiologists, and geneticists.^{25,41,86} The health care system is a “bully

pulpit” for intervening in health-related behavior. Relatively small amounts of weight loss confer disproportionate health benefits,^{22,36} and guidelines for management of chronic disease help integrate current knowledge into everyday medical practice. Ignoring obesity in medical encounters and in assigning covered benefits may be as damaging as ignoring hypertension.

Long-term Maintenance

Although weight loss sustained as long as a year may provide health benefits, these benefits are limited if the weight loss is not sustained over the long term. Unfortunately, weight regain is common, and many persons who lose substantial amounts of weight regain that weight during the next two to four years.⁷ The most promising methods for sustaining weight loss over long periods of time include increasing number of contacts with the program and extending length of the maintenance.^{42,43} Some low-cost, minimal intervention strategies (such as phone contact, mail contact, or both⁴⁷) may improve sustained weight loss. Weight management programs without a maintenance component are probably not worth their cost.

Group Participation

Participation in group sessions (as opposed to individual sessions) also is associated with better weight maintenance,⁸⁷ probably because of the peer support provided.

Can Weight Management Programs Succeed in Medical Care Systems?

Medical care systems are neither efficient nor effective for delivering behavioral prevention services.⁸⁸ More than 60 randomized trials have

Development of personalized strategies for maintaining weight loss is associated with long-term maintenance of weight loss.

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shown that brief physician assessment and advice substantially raises long-term smoking cessation rates among patients,^{89,91} but only a few encouraging studies have addressed dietary⁹² and exercise^{63,64,93} change in response to intervention provided in the medical office. The Trials of Hypertension Prevention⁶⁷ tested efficacy of weight loss and sodium restriction programs—alone and in combination—using blood pressure change as the primary outcome measure. Physical activity was an essential intervention component, and individual weight differences between intervention and control groups remained statistically and biologically significant after three years of follow-up.⁶⁶ Physical activity enhances weight-loss success³⁰ and can help sustain achieved weight loss.²⁷ Health systems have a uniquely important role to play in promoting increased physical activity.²⁵ Case management is effective for improving glycemic control among diabetics⁹⁴ but is rarely integrated into management of obesity.

Patterns of Diet, Weight Assessment, and Counseling in KP

The KP Hawaii Region recently completed a study in which 774 randomly selected adult medical charts were comprehensively reviewed for receipt of 25 adult preventive services during a five-year period.³³ On the basis of observation and staff interviews, we estimated that the actual cost of weighing a patient was about \$2.40 and that the cost of brief (two-minute) dietary advice was \$11.13 during 1996, our final year of observation (Table 2). Because medical chart notes on dietary or weight loss advice were cursory and vague, we defined any mention of diet or weight management (eg, “lose weight” or “change diet”) as

advice or counseling. During the five-year observation period (January 1, 1992 through December 31, 1996), the 774 persons were weighed 14,111 times, or 18 times each (a mean of once every 3.3 months). Thirty-five percent of the group was weighed more than twenty times. Only 3% (n = 25) of the sample was never weighed during the five years, whereas 65% of persons were weighed more than ten times. Conversely, 47% of the group never had any mention of diet or weight in their chart notes over the entire five-year period.

The KP Regions have a wide variety of programs for obesity management. Few of these programs have resulted in lengthy maintenance of weight loss, and those that do generally have low attendance. With the exception of a few seminars and one-session interventions, all the programs involve copayments, which are often substantial. The San Diego area of the KP Southern California Region offers a 16-week Optifast medical weight loss program for extremely obese patients, and Group Health Cooperative (GHC) of Puget Sound offers a special behavioral and counseling program for patients who must lose more than 30 lbs (13.6 kg). Except for GHC, which offers several programs of unlimited duration for long-term maintenance of weight loss, most intervention programs are limited in duration and do not focus on management of chronic disease.

Discussion

Obesity is rapidly becoming our nation’s leading health problem. Diabetes rates are exploding. Diabetic patients require several times the health care resources that non-diabetic patients need. Consequently, obesity has also become a major economic problem. Health

care systems responded rapidly and aggressively to the HIV/AIDS epidemic but not to obesity. Most KP regions have weight management programs, but few of these programs are integrated into chronic disease management programs, and most are not subject to performance evaluation and accountability.

In addition, most weight management programs are viewed largely as public relations programs instead of as integral components of medical care. The best programs still lack a population-based approach and frequently are not covered benefits but are instead fee-for-service programs.

New data show that long-term, skilled approaches to weight management are successful; however, as for any other medical care process, inadequate training and support produce inadequate results. Existing data about these programs are not perfect and have resulted in conflicting reports, but weight management can definitely prevent or delay progression of glucose intolerance into diabetes. How then can we possibly justify not applying this knowledge to persons so likely to be future candidates for amputation, renal failure, blindness, and early death?

Many people make changes in their weight, exercise, and diet—only to relapse soon thereafter. Initial behavior changes can be achieved with minimal intervention,^{89,95} but long-term maintenance of those changes remains a problem. Nonetheless, years of research have shown improved diet and lipid levels in response to low-intensity messages, counseling, or both—in the context of medical care.^{92,95,96} The impact of a message is greater when it is tailored to an individual patient,⁹⁶ and long-term maintenance of weight loss definitely en-

Health systems have a uniquely important role to play in promoting increased physical activity.

hances long-term compliance.

Barriers to dietary and obesity counseling in the medical office include insufficient physician training as well as lack of time, support staff, and compensation.⁹⁷⁻⁹⁹ In addition, medical training does not prepare physicians to deliver nutritional counseling.¹⁰⁰ However, physician counseling skills and practices can be improved,¹⁰¹ and although physician support of patients' behavioral change is critical, physicians need not deliver the intervention. With appropriate training and video-based support, nurses can improve substantially on physician advice to quit smoking,¹⁰² and trained behavior change counselors can be even more effective. A system for using physician credibility to support effective counseling delivered by other medical staff can save money and physician time and can allow counseling delivered by personnel who are properly trained for this task.

Weight management programs exist but rarely include evidence-based activities, content, and design.

Although health care providers often grow discouraged at what they view as inadequate impact of lifestyle messages, data shows that consistent change results when clinicians make an issue of lifestyle. However, not everyone is changed by therapy: 80% to 90% of persons treated for hypertension for many years would be fine without therapy, and cardiovascular events are prevented in only a fraction of persons who receive preventive therapy. Nonetheless, a substantial minority (as many as a quarter to a third) of persons who complete a well-designed weight management program sustain a clinically beneficial level of weight loss over long periods of time.^{7,8,103}

A skeptical review¹⁰³ of 870 weight

management studies identified only 37 that met rigid criteria for inclusion. These 37 studies suggested that weight reduction methods are ineffective for periods longer than two years. However, even in that skeptical review, selected pharmacologic, dietary, and surgical interventions and long-term maintenance were associated with sustained weight management. In the past three to four years, a growing amount of literature^{7,82,84,87} has contradicted prevailing pessimism in this area. We have not included pharmacologic intervention in the group of programs we believe are likely to have long-term benefit because we think the jury is still out on this issue. Weight loss drugs in current use have been used for only a few years, and the long-term benefits and risks of these drugs are still being examined.

The factors in Table 1 have been linked to sustained weight loss reliably but not universally or inevitably. The relative effects vary—probably depending on the nature, quality, and duration of intervention. This knowledge has been largely ignored by health care systems, many of which have expensive and elaborate bariatric surgery programs for an extremely small fraction of the population—and only after they have already become morbidly obese. Most health systems have enormous budgets for managing diabetes and cardiovascular disease but reject serious weight management efforts on the grounds that “nothing works” and that they “can’t afford it.” Those assertions are no longer valid: The few studies⁴ done to date suggest that such programs may actually be cost-saving. Whether these programs are or are not cost-saving, however, does not explain the extraordinary lack of action by health care systems despite the nation’s epidemic of obe-

sity and diabetes. Particularly difficult to comprehend is the neglect of intervention at the time glucose intolerance is diagnosed.

Like other lifestyle intervention, weight management is largely outside the paradigm of what the health care industry perceives as its proper business.⁸⁸ Weight management programs exist but rarely include evidence-based activities, content, and design. What the doctor says matters. If a physician regards weight control as a cosmetic issue or as simply a matter of a patient’s willpower, a clear message is given: Diet and weight are not important to health. At the same time, the reports of consensus prevention task forces^{104,105} emphasize the critical role of behavioral intervention within the medical care system. The United States must begin to address these lifestyle issues effectively through its medical care system if we have any hope of raising our morbidity and mortality rates above those in the bottom tier of developed nations while we lead the world in health care costs and in the proportion of population who are without health care. ❖

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The Web of Life

For this we know: the earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life, he is but a strand in it. Whatever he does to the web he does to himself.

Chief Seattle, c 1786-1866, Suquamish Chief

Kelly Brownell, PhD, and Rebecca Puhl on bias against obese people

Stigma and Discrimination in Weight Management and Obesity

By Kelly D Brownell, PhD
Rebecca Puhl

We have been studying bias and discrimination in obesity for four years and have found striking results. Clear discrimination against overweight people has been documented in three areas: education, health care, and employment. The reason for this appears to be very strong anti-fat attitudes. For example, 28% of teachers in one study¹ said that becoming obese is the worst thing that can happen to a person; 24% of nurses said they are 'repulsed' by obese persons; and, controlling for income and grades, parents provide less college support for their overweight children than for their thin children.

These attitudes can be studied explicitly or implicitly. Explicit attitudes are typically measured by paper and pencil surveys. Numerous studies²⁻⁶ document explicit negative attitudes about obesity among physicians, nurses, dieticians, and medical students. These attitudes include: obese people lack self-control and are lazy, obesity is caused by character flaws, and failure to lose weight is due only to noncompliance.

Measuring implicit attitudes requires methods for studying attitudes that are beyond the subject's awareness. The Implicit Associations Test (IAT) is a powerful way to identify prejudice with respect to race, gender, and other factors.

Use of the IAT to study implicit anti-fat biases among health care professionals reveals a pervasive implicit bias against obesity, even among those who specialize in its treatment. Importantly, the evidence for implicit bias exists in the presence of only minimal evidence for explicit bias.⁷ That is societal anti-fat attitudes are so pervasive that even those who dedicate their lives to treating obesity aren't immune from these attitudes despite wishing to avoid prejudice; these clinicians are not consciously aware of this bias.

Several studies⁸⁻¹¹ indicate that obesity may influence health care professionals' judgments and practices. For instance, mental health workers evaluating a case his-

tory more frequently assigned negative symptoms to an obese patient than to overweight and average-weight clients and rated obese patients more severely in terms of psychological functioning.⁸

A survey of more than 1200 physicians assessed attitudes, interventions, and referral practices for obese patients.⁹ Although physicians recognized obesity's health risks and perceived many patients as overweight, these physicians didn't intervene as much as they should, were ambivalent about how to manage obese clients, and were unlikely to refer them to weight loss programs. Only 18% of physicians reported that they would discuss weight management with overweight patients, and 42% of physicians would have this discussion with mildly obese patients.⁹

Another study¹⁰ suggests that physicians may be ambivalent about treating obesity. Among a sample of 211 primary care physicians, only 33% reported feeling responsible for managing their patient's obesity. They indicated that insufficient time, lack of medical training, and reimbursement issues made managing obesity difficult.¹⁰

Finally, a survey of the attitudes and practices of 752 general practitioners in weight management reported mixed results.¹¹ These physicians reported positive views about their roles in obesity management. Unfortunately, they also underused practices which promote lifestyle changes in patients, described weight management as professionally unrewarding, and noted that they were commonly frustrated by what they perceived as poor patient compliance and motivation.¹¹

Negative attitudes in physicians may lead obese persons to avoid seeking health care. In one study,¹² 290 women and more than 1300 physicians anonymously responded to questionnaires about the influence of obesity on the frequency of pelvic examination. Among women, reluctance to undergo pelvic exams increased with weight, and very overweight women

Negative attitudes in physicians may lead obese persons to avoid seeking health care.

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were significantly less likely to report receiving annual pelvic exams.¹²

Among physicians, 17% reported reluctance to provide pelvic exams to very obese women, and 83% indicated reluctance to provide a pelvic exam if the patient herself was hesitant.¹² Given that overweight women may hesitate to obtain exams and that physicians are reluctant to perform exams on obese or reluctant women, many overweight women may not receive necessary preventive care.

Two other studies^{13,14} also documented delays in seeking medical care by obese women. One study¹³ found a significant relation between body mass index (BMI) and appointment cancellation. More than 12% of women indicated they delayed or canceled physician appointments because of weight concerns. In addition, 32% of women with BMI over 27 and 55% of women with BMI over 35 delayed or canceled visits because they knew they would be weighed. The most common reason for delaying appointments was embarrassment about weight.¹³

A study of nearly 7000 women,¹⁴ included in the National Health Interview Survey for 1992, found that increased BMI was associated with both increased physician visits and decreased preventive health care services. Obese women were significantly more likely than non-obese women to delay breast and gynecologic exams and Pap tests, despite more frequent visits.¹⁴

Efforts to reduce bias toward obese people have been limited.

It is important to note that the stigma of obesity is somewhat unique from that of other marginalized groups, in that obese people internalize societal anti-fat and pro-thin biases. Obese people agree with society's assessment that an imperfect body represents an imperfect person.

Obese people attempt to cope with stigma through one or more variably effective and adaptive means, including confirming negative societal stereotypes, providing socially acceptable explanations for excess weight, confrontation, social activism, avoidance, compensation, and losing weight through medical or surgical treatments.¹⁵

Self-report studies show substantial changes in perceived discrimination after bariatric surgery. In one,¹⁶ 87% of presurgical patients reported that their weight prevented them from being hired for a job, 90% reported being stigmatized by coworkers, 84% avoided being in public places because of their weight, and 77% reported daily depression. Fourteen months after surgery, every patient reported reduced discrimination,

most reported rarely or never perceiving prejudice after surgery, and 90% reported substantially increased cheerfulness and confidence.¹⁶ Studies are limited by self-reports and self-selected samples, but it is important to consider the influence of social perceptions in motivating the decision to undergo surgery.

Efforts to reduce bias toward obese people have been limited. One intervention study¹⁷ attempted to reduce stigma toward obese patients among medical students. Before random assignment to a control group or an education intervention using videos, written materials, and role-playing exercises, the majority of medical students in the study characterized obese individuals as lazy, sloppy, and lacking in self-control, despite the students indicating that they had an accurate understanding of obesity's cause. After the intervention, students demonstrated significantly improved attitudes and beliefs about obesity compared with the control group. One year later, the effectiveness of the intervention was still evident.¹⁷

Other studies to assess strategies for reducing implicit bias against obese people in the general population have been reported.¹⁸ Using the IAT, strong anti-fat implicit attitudes and stereotypes were demonstrated before any intervention but no anti-fat bias was seen. Participants of normal and excess weight were assigned to one of three groups: no intervention, reading a "news story" identifying the cause of obesity as genetic, or reading a similar story reporting the cause of obesity as overeating and lack of exercise.

Other subjects were asked to read one of three stories: a neutral story, a story about discrimination experienced by an individual with a physical handicap, or one about discrimination experienced by an obese person.¹⁸

The pattern of results was somewhat surprising. The group that received information that indicated obesity was predominantly caused by behavioral factors (such as overeating and lack of exercise) had higher anti-fat bias compared with that of other groups; the group that received information that indicated obesity was mainly due to genetics did not have lower implicit or explicit bias. Similarly, attempts to evoke empathy through stories of discrimination against an overweight young woman did not produce lower bias across the whole sample.¹⁸

However, in two studies, the interventions did lead to lower implicit bias for *overweight* participants. Given that obese individuals internalize society's bias, this may have interesting implications.¹⁸

Awareness training is important in helping health care professionals recognize that the societal anti-fat bias is

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shared by everyone, including them. We must pay attention to specific ways bias manifests, including subtle ways such as waiting room chairs and treatment gowns that aren't large enough or care providers who have negative, callous, or ambivalent attitudes. As a society, our goal must be to provide the same level of care for overweight people that others receive. To do so, we must also be attentive to the special needs of this population; obese individuals may be more reluctant to come in for preventive care, such as mammograms, because they're afraid of being weighed and criticized. The health care system must go out of its way to address these issues and encourage people to get the care they need and deserve. ❖

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What is Essential

It is only with the heart that one can see rightly;
what is essential is invisible to the eye.

The Little Prince, Antoine de Saint-Exupéry, 1900-1940, French poet, pilot, and author

Walter Willett, MD, DrPH, discusses current concepts of nutritional management

Concepts and Controversies on Diet: Stop Recommending Low-Fat Diets!

By Walter C Willett, MD, DrPH

History of Dietary Recommendations

I will provide an overview of what is increasingly being seen as an optimally healthy diet and will then focus on how nutritionists and physicians can help control the problems of obesity and overweight—problems which are engulfing this country and the world.

The Food Guide Pyramid

The major means of communicating advice about nutrition to the general public is the US Department of Agriculture's Food Guide Pyramid. The main message of the dietary pyramid is that all fats are bad and that we should try to minimize their use in our diet. Because most calories in the US diet are derived from fats and carbohydrates, adhering to a low-fat diet implies eating large amounts of carbohydrates. Carbohydrates form the base of the Food Guide Pyramid and we are told to eat as many as 11 servings of starch per day. The pyramid includes potatoes as a vegetable, so we may consume as many as 13 servings of starch per day. Is that amount really healthful for us? When pressed, representatives of the Department of Agriculture acknowledge that no evidence exists supporting inclusion of large amounts of starch in a healthful diet. Indeed, information that has accumulated during the past decade may indi-

cate that consuming large amounts of starch can contribute to health problems—particularly when we refer to starchy foods such as potatoes, white bread, white rice, white pasta, bagels, and other refined starches.

Fat: Facts and Fallacies

Thirty years ago, the Keys et al¹ and Hegsted et al² equations provided the basis for dietary guidance in the United States. These equations resulted from meta-analyses of many carefully controlled feeding studies that evaluated the way in which total serum cholesterol level was affected by replacing dietary carbohydrates with different types of fat. We learned that saturated fat has a positive coefficient: The more saturated fat in the diet, the higher the serum cholesterol level. However, polyunsaturated fat has a negative coefficient: The more polyunsaturated fat in the diet, the lower the serum cholesterol level. Thus, the concept conveyed by the 1992 Food Guide Pyramid—that all types of fat are unhealthy—is inconsistent with what we have known for more than 30 years.

After publication of the Keys and Hegsted equations, the main dietary recommendation during the 1960s and 1970s was to replace saturated fat with polyunsaturated fat; as a result, polyunsaturated fat intake in the US doubled. Retrospect suggests

that this dietary change was the dominant contributor to the 50% decline in coronary event mortality during the same period. In the early 1980s, the message subtly shifted from “replace saturated fat with polyunsaturated fat” to “remove all fat from the diet.” Exactly how this shift happened is unclear, but a segment of the nutrition community believed that messages about different types of fat in the diet were too complex and that promoting reduction of total dietary fat made more sense. However, no evidence showed that the message of “remove all fat from the diet” was easier for people to understand or practice.

By the 1990s, published information from the American Heart Association strongly advised use of nonfat products,³ a recommendation which marked the beginning of the big, national crusade against dietary fat. We were supposed to avoid foods such as regular yogurt, margarine, and butter because they were high in fat; instead, we were supposed to eat nonfat yogurt, butter-flavored granules, nonfat salad dressing, and fat-free cookies and crackers, even though these substitutes typically had just as many calories as the products we were supposed to avoid. Were these substitutes really better for us? Important findings from a population study in Holland by Mensink and Katan⁴ have been replicated many



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times.⁵ Those authors studied the effect on serum cholesterol and triglycerides in people who had been eating a typical “Western” diet (about 40% of total calories from fat) when they replaced 10% of calories from saturated fat with calories either from olive oil (mostly monounsaturated fat) or from complex carbohydrates. The strategy of replacing fat calories with carbohydrate calories is consistent with the advice from the American Heart Association. A similar decrease in total serum cholesterol was seen in people on both replacement diets; if anything, replacement of saturated fat calories by monounsaturated fat calories reduced total serum cholesterol slightly more than did replacement by carbohydrate calories. However, the most important differential effect was in high-density lipoprotein cholesterol (HDL-C, the “good cholesterol”) level. As carbohydrates in the diet increased, serum HDL-C level decreased; however, as saturated fat was replaced by monounsaturated fat, serum HDL-C level remained stable. In addition, increased dietary carbohydrates resulted in increased fasting serum triglycerides. The higher monounsaturated fat diet was apparently healthier than the low-fat, high-carbohydrate diet because although both reduced total serum cholesterol, the higher monounsaturated fat diet resulted in better serum HDL-C and triglyceride levels.

Understanding Trans Fatty Acids

The story on dietary fat has become a bit more complex with the realization that trans fatty acids (trans fats) are also important. Trans fats are extremely prevalent in processed foods. Trans fats are created from polyunsaturated fats during the partial hydrogenation process that

converts liquid vegetable oil, soybean oil, or corn oil into solid fats such as margarine or shortening (Crisco); cis-isomers are transformed to trans-isomers, a change that causes the molecules to straighten and organize into a solid. In addition, omega-3 fatty acids are destroyed during partial hydrogenation, a reaction that creates a product with a longer shelf life (important to the food industry) but with less nutritional value.

For a long time, we believed that fat was fat, and that the form of dietary fat didn't really matter. But in the 1970s, we became concerned that the partial hydrogenation process may be transforming an essential fatty acid that has important biologic function into a molecule that may have very different biologic function. Mensink and Katan et al⁶ studied the effect on serum cholesterol level after people replaced 10% of their dietary calories from monounsaturated fat with calories from either trans fat or saturated fat and found less of an increase in total serum cholesterol level with replacement by trans fat. For a number of years, the food industry used these results deceptively by saying that because trans fats reduced total serum cholesterol level relative to saturated fats, trans fats should be used regularly in our food supply. This message was erroneous, because although increased dietary trans fat or saturated fat similarly increases LDL-C cholesterol level, trans fat also causes undesirable decreases in HDL-C level.

In a meta-analysis of studies on the effect of various dietary fats on blood lipids (eg, total cholesterol: HDL-C

ratio),⁷ the negative effect of dietary trans fat was about twice that of saturated fat on a calorie-for-calorie basis. We now also know that dietary trans fats have additional adverse effects, including increased serum triglyceride⁷ and lipoprotein(a)⁸ levels and adverse effects on endothelial function.⁹

Findings from The Nurses' Health Studies

Although this discussion has focused on the effects of trans fat and other types of dietary fat on blood lipid levels, researchers now know that many other mechanisms can potentially mediate an effect of diet on risk of heart disease. These mechanisms include systemic or local inflammation, hypertension, homocysteine, and prooxidant and antioxidant processes. Now, researchers are recognizing the important role mediated by the threshold for ventricular fibrillation.

If we consider only the effect of diet on blood lipids, we could be misled about how the dietary factor influences the risk of heart disease—which is, of course, what we are ultimately concerned about.

Ideally, researchers could conduct a series of large randomized trials comparing different types of dietary fat in different amounts and proportions to assess the effects on risk of coronary heart disease. However, this type of study requires large numbers of people, long follow-up periods, and strict dietary compliance; consequently, few such studies exist. An alternative strategy for a prospective study would be one in which dietary and health data were collected from large numbers

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of people over time, with regular updates as participants' diets changed; this study would measure and control for potentially confounding variables, such as smoking and physical activity. My colleagues and I planned and are conducting three such studies. In 1976, Frank Spizer established The Nurses' Health Study,¹⁰ in which 121,000 female nurses participated. In 1989, The

Nurses' Health Study II¹⁰ began with more than 116,000 of the next generation of female nurses enrolled. Because both of these studies included women only, we began the Health Professionals Follow-Up Study in 1986 and enrolled 52,000 men.¹¹ These studies are unique, not only because of their large size but also because we periodically reevaluate diet—a very important factor because people gradually change their diet. These studies track participants' diet and assess risk of cancer, cardiovascular disease, and other major health conditions.

In The Nurses' Health Study, we evaluated levels of different types of dietary fat and associated risk of heart disease (after controlling for other variables) after 14 years of follow-up.¹² On the basis of about 1000 incident cases of coronary heart disease, the deleterious effect of trans fats on blood lipids would have predicted that trans fat was clearly the worst type of dietary fat.

Risk of coronary heart disease increased only slightly with increases in dietary saturated fat compared with increase in dietary carbohy-

drates. This result is not surprising because replacing calories from saturated fat with calories from carbohydrate does not alter the serum

HDL-C level. In contrast, replacing calories from carbohydrate with calories from saturated fat increases levels of total serum cholesterol, LDL-C, and HDL-C, so the ratio does not change. Just substituting saturated fat calories for carbohydrate calories does not have much effect on coronary heart disease.

To substantially decrease risk of heart disease, we have to replace calories from the "bad" fats—trans fat or saturated fat—with calories from the "good" fats—monounsaturated or polyunsaturated fat—or from some proportion of both. In our studies, level of total dietary fat was not related to risk of heart disease, because most women ate some bad fats and some good fats. The key association was in the balance of types of fat in the diet. Women with a high proportion of trans fat to polyunsaturated fat in the diet had up to three times the risk of heart disease compared with women with a high proportion of polyunsaturated fat to trans fat in the diet. Why did some women have high levels of trans fat and low levels of polyunsaturated fat in their diet? The sad fact is that nutritional messages told women that they should eat margarine instead of butter, Crisco, or vegetable shortening because margarine was lower in saturated fat. Although some of the women were perhaps eating unhealthful foods, such as donuts or fast-food hamburgers, these women primarily were doing what they had

been told was good for them. During the late 1970s and early 1980s, most physicians were telling people to use margarine instead of butter; but at that time, almost all the margarines were less healthful than butter. Fortunately, with publication of results of studies about trans fat, some margarines are now manufactured that are free of trans fats.

Polyunsaturated Fats: About Omega-3 Fatty Acids

Polyunsaturated fats can be divided into two main classes, omega-6 and omega-3 polyunsaturated fats.

A growing body of compelling evidence indicates that omega-3 fatty acids have antiarrhythmic properties. One of the most conclusive studies, the large, randomized GISSI trial¹³ conducted in Italy, showed that people with a previous myocardial infarction (MI) episode who ingested fish oil (in capsule form) had moderately reduced risk of recurrent cardiovascular disease compared with that of patients with previous MI who took placebo. In this study, the benefits of fish oil related specifically to prevention of sudden death, presumably caused by arrhythmia. The Physicians' Health Study¹⁴ evaluated risk of heart disease in 18,000 men and found no relation between serum omega-3 fatty acid level and total incidence of heart disease. However, when Albert and her colleagues categorized incident events of heart disease as sudden death versus all other events, they found strong inverse relation between serum level of omega-3 fatty acids and risk of sudden death. Men with the highest serum levels of omega-3 fatty acids had about 80% lower risk of sudden death.¹⁴

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Primary dietary sources of omega-3 fatty acids include fish oil, plant oil, and walnuts.

Fish Oil

The most popular source of dietary omega-3 fatty acids is fish oil. Fatty fish, such as mackerel, lake trout, herring, sardines, and albacore tuna contain high levels of omega-3 in the forms of eicosapentaenoic and docosahexaenoic acid.

Plant Oil

Despite fish oil's popularity as a source of omega-3 fatty acids, the greatest quantity of omega-3 fatty acids in our food supply is found in plant oil. About 10% of the fat in canola oil, 7% of the fat in soybean oil, 5% to 10% of the fat in walnuts, and 50% of the fat in flaxseed oil is omega-3 fatty acid, specifically alpha-linolenic acid.

The most important source of omega-3 fatty acid in the diet of participants in The Nurses' Health Study was oil-and-vinegar, full-fat salad dressing, because most dressings were made with either soybean oil or canola oil. Salad dressings are not hydrogenated; if they were, they would be of solid consistency in the refrigerator. We found a 50% lower risk of fatal coronary heart disease among women who ate full-fat salad dressing most days of the week compared with women who rarely ate full-fat salad dressing.¹⁵ Unfortunately, because the American Heart Association and others have been telling people to avoid full-fat salad dressing, many people could have died thinking they were making the healthier choice by using fat-free dressing.

Nuts

Another misinformed nutritional message was to avoid eating nuts, because nuts are high in fat. Nut

consumption by participants in The Nurses' Health Study decreased by about 50% after 1980 because women were doing what they were told was healthful. However, incidence of myocardial infarction was about 30% lower in women who ate nuts almost daily compared with that of women who rarely ate nuts.¹⁶ This result is expected, because the fat in nuts is almost all unsaturated. A number of carefully controlled feeding studies concluded that if you consume more nuts, you improve your blood lipids. And in all of these studies, people who consumed more nuts did not weigh more, because nuts satisfied their hunger. These studies provide evidence that you do not get fat just because you eat high-fat products.

To summarize, coronary heart disease rates can be dramatically reduced by nutritional means, but this benefit will not be achieved by replacing saturated fat with carbohydrate.

Is Dietary Change After Myocardial Infarction Too Late?

The good news is that definite benefit results from dietary change after a coronary event. In the Lyon Diet Heart Study,¹⁷ conducted in France, people who had already had an MI were randomized to either the experimental diet (what they called a Mediterranean-type, high alpha-linolenic-acid diet) or the control diet. The experimental diet consisted of high quantities of fruits and vegetables, low amounts of red meat, low amounts of trans fat and saturated fat, and moderate amounts of whole grains. This diet also had substantially increased amount of omega-3 fatty acids in the form of canola oil (10% alpha-linolenic acid). The control diet was the American Heart Association diet.

The results were dramatic: far better survival on the experimental diet with about 70% reduction in recurrent coronary heart disease and coronary heart disease mortality. The benefit showed up within months of changing to the experimental diet. A confirmation study¹⁸ was done in India, where similar dietary changes were made using mustard oil (the genetic precursor of canola oil) as the source of omega-3 fatty acids. These researchers also observed a dramatic reduction in recurrent coronary heart disease in participants after a short time on what they called an Indo-Mediterranean diet, which had Indian seasonings but nutritionally was similar to the Mediterranean diet used in the Lyon Heart Study.

So it's not too late to make dietary improvements after a heart attack.

Dietary Fat and Cancer

Although recommending low-fat diets may not decrease coronary heart disease, if a high percentage of calories from fat in the diet has other deleterious effects, we still might reasonably recommend low-fat diets.

Breast Cancer

Breast cancer was thought to be related to high-fat diets. This hypothesis was derived, to a large extent, from comparison of fat intake and breast cancer rates between Western and Asian countries. Because of many differences between Western and traditional Asian diets and lifestyle, great potential exists for confounding factors in these international comparisons. For that reason, the relation between

... coronary heart disease rates can be dramatically reduced by nutritional means, but this benefit will not be achieved by replacing saturated fat with carbohydrate.

... we found a 30% lower risk of coronary heart disease with higher intake of cereal fiber but not with fruits or vegetables.

total fat intake and breast cancer risk was a primary study objective in the Nurses' Health Study and was the primary justification for funding the dietary component of the Nurses' Health Study. On the basis of about 3000 women in whom breast cancer developed during 14 years of follow-up, we did not find any support for an important relation between fat total intake and breast cancer.¹⁹ Over a wide range of fat intake, no hint was found of a positive association with breast cancer. In fact, the trend was inversely statistically significant in that the highest breast cancer rates were in the women who had the lowest total fat intake.

Colon Cancer

For colon cancer, we saw a somewhat different result. Although no association existed between level of animal fat intake and risk of breast cancer, such an association was seen for risk of colon cancer. With more detailed examination, however, this association appeared to result entirely from red meat consumption data, particularly of processed red meat. Although we are not sure of the cause, the fat in red meat does not appear to increase risk of colon cancer.²⁰

In summary, after examining many different outcomes within The Nurses' Health Study and our cohort of men as well, we did not see any disease that is clearly related to total intake of fat.

Fruits, Vegetables, Alcohol, and Folic Acid

Many aspects of diet besides fat and type of fat clearly influence the risk of coronary heart disease. Our study demonstrated an inverse relation between consumption of

fruits and vegetables and risk of coronary heart disease. Probably many components of fruits and vegetables contribute to this reduction in risk. One probable component is potassium, because potassium does lower blood pressure—a major risk factor for coronary heart disease.

One component of fruits and vegetables that does seem important is folic acid. Level of homocysteine in the blood is now fairly well established as an independent risk factor for coronary heart disease.²¹ Despite a small genetic contribution, blood level of homocysteine is primarily determined by the amount of folic acid in the diet.

Reducing the homocystine blood level is fairly easy. For example, when we look at folic acid and coronary heart disease, we see a benefit as well as a strong interaction with alcohol. Dr Arthur Klatsky (KP Northern California), using data from Kaiser Permanente,²² provided some of the first good evidence that regular, moderate consumption of alcohol reduces risk of coronary heart disease compared with not drinking at all. A moderate drinker has the very beneficial effect of having more folic acid in the diet. Women who had the highest amount of folic acid and were moderate drinkers had about one fourth the risk of coronary heart disease compared with women who were nondrinkers and had low amounts of folic acid in the diet. Almost every time we look at folic acid, we see interaction with alcohol.

How can we increase our folic acid level? It's very simple: just take a multiple vitamin. Although a good diet is also certainly important because you get other benefits from fruits and vegetables, absorption of folic acid from fruits and vegetables is somewhat inconsistent. Without

some sort of supplementation, you can't be certain that you are getting adequate folic acid.

Carbohydrates: About Glycemic Index and Glycemic Load

Carbohydrate intake has been a fairly neglected area until recently—a surprising fact because carbohydrate accounts for most calories in most diets. Part of the reason for this neglect has been the "party line" from the American Diabetes Association, which says that all carbohydrates are the same. I believe that the evidence clearly shows that all carbohydrates are not the same.

Until recently, when we talked about the importance of different kinds of carbohydrates, we talked about high-fiber, whole-grain types of carbohydrates. The fiber content of grains does appear important. We published an article²³ that showed no relation between fiber intake and colon cancer, and this finding has been reproduced in a number of other studies as well.^{25,25} In The Nurses' Health Study and the Health Professionals Follow-Up study, we found a 30% lower risk of coronary heart disease with higher intake of cereal fiber but not with fruits or vegetables.²⁶ This finding has been reproduced in about a dozen epidemiologic studies.

Glycemic Index

However, more than just the fiber content of cereal products and carbohydrates may need to be considered; glycemic index may also be important. During the last few years, the evidence has become convincing that coronary heart disease benefit is not conveyed solely by high-fiber carbohydrates but also by low-glycemic-index carbohydrates. High-glycemic-index carbohydrates could be, for example, bagels. This

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is what happens if you sneak off and have your bagel: you very rapidly break down that refined starch into glucose in the stomach. That glucose is very rapidly absorbed, and your blood sugar increases sharply, or “spikes.” Of course, the body does not want high blood sugar so the pancreas pumps out a big blast of insulin, and the blood sugar comes crashing down. Often, then, by three or four hours after eating refined starch, people are a bit hypoglycemic relative to the fasting level of glucose.

This reaction has several potentially adverse consequences. First, this rapid decline in blood sugar makes you feel hungry and you want to run for the refrigerator. That’s great if the refrigerator is a mile away, but, it’s usually not. Despite what Kenneth H Cooper, MD, MPH, (founder Cooper Aerobics Center; author of *Aerobics*) would like, the refrigerator is often just in the next room or around the corner—just all too easy to get more calories into our environment. Second, these high levels of glucose and insulin appear related to the adverse metabolic response we talked about earlier—to low HDL-C and high triglycerides that would predict higher risk of coronary heart disease. Third, high demand over the years for insulin—and for high amounts of insulin—may well lead to pancreatic exhaustion and risk of Type II diabetes.

In contrast, when you have low-glycemic-index carbohydrate, such as a coarsely ground whole-grain muffin, whole-grain pasta, or an apple, that kind of carbohydrate is absorbed less rapidly. The rise in blood glucose and in insulin is less, and you don’t get that midmorning depression in glucose level. You’re less likely to get hungry before the next meal with low-glycemic-index

carbohydrates, as has been shown in short-term studies.

Glycemic Load

Using data from The Nurses’ Health Study, we computed what we call glycemic load (the amount of carbohydrate available times its glycemic index), because glycemic load will most specifically relate to elevation in blood glucose. The glycemic index has been misused by some people, and popular books on this topic tell you to avoid carrots because the carbohydrate in carrots has a high glycemic index. However, because carrots have such a small amount of carbohydrate, blood glucose level won’t rise much no matter what the glycemic index is. You must eat about a pound-and-a-half of carrots to consume the 50 g of carbohydrate used to test for glycemic index. So, the amount of carbohydrate and its quality (as is reflected in the glycemic index) is what we used to calculate glycemic load: the amount of carbohydrate multiplied by its glycemic index.

Glycemic Load and Disease Risk

Risk of Type II diabetes increases with higher glycemic load or higher glycemic index and lower cereal fiber in the diet. Women in The Nurses’ Health Study with a high-glycemic-load, low-cereal-fiber diet had about 2.5-fold increased risk of diabetes compared with women who had a low-glycemic-load, high-cereal-fiber diet.²⁷ And we’ve reproduced this finding in the Health Professionals Follow-Up Study²⁸ and, more recently (although we haven’t published it yet), in The Nurses’ Health Study II as well. So how did these women get that high-glycemic-load, low-cereal-fiber diet? Well, they were following the Food Guide Pyramid. They were load-

ing up on carbohydrate—they may have had the bagel for breakfast in the morning or maybe a bagel and jam. That’s the best thing—fat-free, right? Isn’t that supposed to be the paradigm of a healthful breakfast? For lunch, they may have had some pasta with fat-free sauce on it and come home for dinner and had a baked potato—also what we were told is a virtuous thing to have, with no fat on it and fat-free salad dressing. And they might have had some fat-free yogurt for dessert, which has a lot of sugar, and maybe even a fat-free cookie, which is high in sugar, and they might have felt very good about all of that. But they were putting themselves at high risk for Type II diabetes in the process, even though they were doing what they were told—and that’s particularly tragic. It’s hard enough to get people to follow advice, but when we misguide them—then that’s a real tragedy.

Looking at coronary heart disease incidence among participants in The Nurses’ Health Study was interesting, because we saw an interaction between glycemic load and body mass index (BMI).²⁹ Participants who were really lean did not experience much adverse effect from a high-glycemic-load diet. However, women who were of average or above-average BMI almost doubled their risk of coronary heart disease by eating a high-glycemic-load diet compared with eating a low-glycemic-load diet. This interaction explains why traditional Asian countries can live on high amounts of rice in the diet and not have adverse problems. They are very lean and physically active and have extremely low prevalence of insulin resistance. Gerald Reaven at Stanford University demonstrated this interaction first in a carefully controlled feeding study³⁰ in which

he replaced monounsaturated fat with carbohydrate and overall saw depressed HDL-C and elevated triglycerides with a higher-carbohydrate diet. But that adverse metabolic change was far worse if women had an underlying degree of insulin resistance. Insulin resistance, which is mainly in our population because of our overweight and inactivity,

... the possibility exists that high carbohydrate intake, particularly of highly refined carbohydrates and sugars ... may also have contributed to the problem of overweight for metabolic reasons ...

greatly exacerbates the adverse metabolic response to a high-carbohydrate diet. Again, if you're very lean and active and have low insulin resistance, you can tolerate the higher-glycemic-load diet, but if you're overweight and have more insulin resistance, you cannot tolerate the high glycemic load so well. Ironically, if people go to see a dietitian in most institutions—maybe not here, but in most places—the

first thing they're told is "You've got to go on a low-fat, high-complex-carbohydrate diet." These are the very people who metabolically cannot tolerate that kind of diet. And we've seen in the Nurses' Health Study confirmation of Gerald Reaven's findings—that there's a much worse adverse metabolic picture among women on a high-glycemic-load, low-fat diet if they're overweight.

Overweight, Obesity, and Disease Risk

I'll summarize some of the adverse consequences of higher BMI that we found in the Nurses' Health Study and in the Health Professionals Follow-Up Study. Very strong associations exist between BMI and adverse health outcomes. The worst, of course, is Type II diabetes, the dis-

ease most closely linked with being overweight. Someone who has a BMI of 23 has four times the risk of Type II diabetes compared with a person with a BMI of less than 21, and a BMI of 25 is considered within the range of healthy weight. Thus, many people who are considered within the healthy weight range are far from their optimal weight. People in the mid or upper range of overweight also have a two- to three-fold increased risk of coronary heart disease, gallstones, and hypertension. Of course, during the last three years, we've come to appreciate many other consequences of overweight besides those of more classic cardiovascular disease and diabetes. We analyzed incidence of breast cancer in postmenopausal women in The Nurses' Health Study.³¹ For a while, we had trouble understanding the results until we stratified women by their use of hormone replacement therapy. All women who were using hormone replacement therapy were at elevated risk of breast cancer, regardless of BMI. However, among women who never used hormone replacement therapy, about a two-fold higher risk of breast cancer existed for women who had gained 20 kilograms or more since they were 18 years old compared with women who had maintained stable weight during their adult lives. What this shows is that the major effect of being overweight is mediated by elevated estrogens. For example, women who are obese have about three times the blood level of estradiol compared with that of lean women. Taking a hormone replacement pill did not, in fact, further elevate breast cancer risk among the women who were most overweight. Addition of progesterone changes that picture; progesterone has substantial addi-

tional adverse effects on breast cancer risk above and beyond the estrogen alone.

What Diet Can We Recommend?

One of the concerns to us was that if we looked at the changes over time in the United States—a big upturn in obesity occurred starting around the late 1970s and early 1980s. Until that time, prevalence of obesity was still an important problem, but the prevalence was rather flat and not increasing. But then the rates skyrocketed up. Interest shifted about that time from removing certain types of fat to removing all fats from the diet.

Just until the last two years or so, the "party line" in the nutrition community was that it's only fat calories that count, and that really goes along with the official dietary pyramid. I've had colleagues who said you can't get fat from eating carbohydrates—that you only get fat by eating fat in the diet. Farmers have known for thousands of years that is not true. How do you make the fattened lamb or fattened anything? You put the animals in a pen so they don't run around and get physical activity, and you feed them grain—even whole grain—and they get fat. And this sad story appears to apply to people—not just lambs. Unfortunately, we probably have collectively as a nutrition community contributed to the overweight problem—perhaps because people were given the impression that they could eat all the carbohydrates they wanted to—that you could have your box of fat-free cookies and it wouldn't make you fat. I think this picture has changed in the last couple of years: recognition that total calories count has evolved. But the possibility exists that high carbohydrate intake,

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particularly of highly refined carbohydrates and sugars (as the dominant form of carbohydrate in the US diet) may also have contributed to the problem of overweight for metabolic reasons, which I discussed when describing the glycemic index.

A tremendous debate has begun, which I'm sure everyone is familiar with, about what type of diet best helps with weight loss and management. This question should ideally be settled by randomized trials: it's not impossible and not nearly as difficult to do randomized trials looking at weight as those studying incidence of coronary heart disease. For heart disease, you may need tens of thousands of people; you need perhaps 100 or 200 people for a reasonable study of dietary effects on body weight. This topic may also have been misinterpreted, because most of the randomized trials done until recently used only short follow-up periods, a few weeks or a few months, from which you can get quite misled. Clearly, long-term weight control is most important. People lose weight on almost any diet in the short term; the real challenge is to maintain weight loss and weight control.

We analyzed³² results of a series of randomized trials that examined the effect of diets with lower levels of dietary fat as a percentage of total calorie intake and that lasted one year or more. Our analysis showed no weight benefit accrued after one year or more. Although a number of studies showed some modest decrease in body weight during the first few months, weight either stabilized or was regained by 12 to 18 months. It's very clear that low-fat diets are really not effective, on average, for long-term weight control. Some people can go on a low-fat

The Atkins Diet

Many are troubled by this diet because it usually contains the recommendation to eat all the red meat and butter and cheese you want. But a handful of studies have been published recently indicating that people on that type of diet are able to lose more weight and control their weight better than people on a low-fat diet, a finding which adds important evidence that a low-fat, high-carbohydrate diet makes it difficult for many people to control their weight. Weight reduction, if somebody is overweight, is so important and so beneficial that reducing weight can counter the adverse effects of eating large amounts of saturated fat in the diet.

Thus, it's important to pay attention to these studies and to learn from them, even though I wouldn't recommend long-term high intake of animal fat to anybody. If it's true (and it probably is true) that substantially decreasing carbohydrate intake can make it easier to control total calories, you can have a very-low-carbohydrate diet and have it be a healthful diet at the same time if—instead of red meat and butter—you consume salmon, nuts, olive oil, and plenty of salad. That combination is a good diet that's low in carbohydrates and may be useful for many people. For most people, a Mediterranean-type diet such as I've suggested, which includes modest amounts of whole-grain forms of carbohydrate, will probably be most acceptable and beneficial in the long run. But more long-term studies of the effects of various diets on weight control are clearly needed.

diet and have enough willpower to lose weight, but randomized studies show that most people do not lose weight on low-fat diets.

These findings are surprising, because most of these studies were seriously biased in favor of the low-fat group. In most of the studies, the control group got no intervention, and the low-fat-diet group got intensive, state-of-the-art intervention with monitoring of food intake, keeping diaries, weighing food, group support, and lots of counseling. Still, they didn't do any better than the control group. Evidence suggests that just intensive monitoring and attention to diet can help people lose a few pounds, so this result was surprising.

On the basis of a small meta-analysis (restricted to the four studies that had similar-intensity intervention in both groups), low-fat diets did worse. A study by McManus et al³³ had similar-intensity intervention for both groups.

One group, on what was called "high-fat" but probably better called "moderate-fat," ate a diet with 35% of total calorie intake from fat, a Mediterranean-type, healthful diet. This diet included low amounts of red meat, lots of whole grains, lots of vegetables, and the fat was from nuts, olive oil, and salad dressing. The "low-fat" group ate a diet with 20% of calories from fat, an American Heart Association type of diet. What researchers saw was a paradigm for what's happened in the United States. In the first six months, similar weight loss occurred in both groups, but the people on the low-fat diet just couldn't adhere to this diet; they dropped out at a very high rate. When researchers brought these participants back in to weigh them, they had regained much of the weight. But the people on the higher-fat, Mediterranean-type diet had about twice the weight loss by 18 months compared with loss in

the low-fat group, and these people felt satisfied. Their diet was something they could live with, and they didn't feel deprived.

Conclusion

To emphasize the tremendous potential of dietary intervention and lifestyle, I'll summarize with a look at how much disease could be prevented. As Dr Cooper emphasized, not smoking is important and we saw that BMI is important and that activity, even fairly modest activity, is important. We defined a good diet by using a score based on low trans fat, high polyunsaturated fat, low glycemic load, high cereal fiber, fish twice a week or more, and high folic acid. We also defined moderate drinking as five or more grams of alcohol per week. That's about a half a drink, so it's a very modest amount of alcohol that seems to be beneficial.

During 14 years of follow-up to The Nurses' Health Study, we found that had participants followed this very moderate, very achievable set of behaviors, they could have avoided more than 80% of cases of coronary heart disease, 92% of cases of Type II diabetes, and 71% of cases of colon cancer.

The Food Guide Pyramid does not provide people with good dietary advice because the guide ignores type of fat, form of carbohydrate, and source of protein in the diet—all of which can make an enormous difference to health. ❖

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Our Ambitions

To wrest from nature the secrets, which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions.

Sir William Osler, 1849-1919, physician, professor of medicine, and author

James Hill, PhD, and Rena Wing, PhD, discuss lessons from patients who have lost and sustained significant weight loss

The National Weight Control Registry

By James Hill, PhD; Rena Wing, PhD

Introduction

We want to share some things we have learned from a unique group of people: “successful losers,” as subjects in the National Weight Control Registry like to be called. As we know, our major challenge in treating obesity is not losing weight but keeping it off—and participants in the National Weight Control Registry have taught us a lot about how to maintain weight loss.

Defining Success

Let’s start by defining successful obesity management. Most people are gaining weight, and if we do nothing, the weight of the population will continue to increase. Moreover, the heavier people are probably gaining weight at a slightly higher rate—and if we do not help our overweight or obese patients, they will probably become even more overweight or obese. Thus, one measure of weight management success would be to stop the weight gain: Just by doing this, we might prevent development of diabetes in many patients.

Weight normalization by obese people is rare. Therefore, a second goal for obesity management would be to help patients achieve modest weight loss, which we may define as losing 5% to 10% of the patient’s initial weight. Substantial data show clear health benefits from such weight loss. Most patients with body mass index (BMI) above 30 kg/m² will not reduce their BMI to below 25 kg/m² and will not achieve the same success as achieved by subjects in the National Weight Control Registry, who are exceptional people.

Losing Weight

Although the popular media encourage the perception that almost no one succeeds at long-term weight loss—a 99% failure rate is the figure perpetuated most commonly—we are getting better at helping people achieve weight loss sufficient to greatly improve their health. We have come a long way in using protocols—structured, skill-based, group, and individual—to produce lifestyle change. One great example is the

recent Diabetes Prevention Program,¹ in which a 7% weight loss in overweight and obese persons at high risk for diabetes was associated with a 58% reduction in this risk. This finding illustrates the benefit of modest weight loss.

Maintaining Weight Loss

What do we currently know about maintaining weight loss? Most of what we know comes from university-based weight loss programs; with some exceptions, commercial programs neither collect nor publish data showing the results achieved by clients. Consequently, we generally know little about the way real-world people maintain their weight loss. Much of what we know has been learned from people who lose but then regain weight—ie, those who have failed at weight loss maintenance.

If successful weight loss is defined as intentionally losing 10% of initial body weight and not regaining it, we can say that 20% of overweight and obese people in the United States have lost weight successfully. But a 20% success rate still isn’t very good; therefore, whatever criteria for success are used, we must accept one major truth: To ensure that our ability to manage obesity reaches the necessary level of effectiveness, we must improve our methods.

Why are so few people successful at long-term weight maintenance? We argue about whether this lack of success is caused by our physiology or by our behavior, but the reason is probably a combination of both factors. Physiology certainly plays a role in obesity, but substantial data show that people can make behavior changes allowing them to achieve and maintain a healthy body weight. I believe that our lack of success in getting more people to make and achieve this change has two causes: We focus too much on diet and not enough on physical activity; and we focus too much on losing weight and not enough on keeping it off. Results from the National Weight Control Registry are presented here to illustrate these points.



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The National Weight Control Registry

The group of people described here participated in the National Weight Control Registry, a database founded by myself and Dr Rena Wing, a behavioral psychologist at Brown University. Together, we set out to see if we could find—and learn from—people who were successful at long-term maintenance of weight loss. Our study was not a randomized controlled trial (people self-selected to participate in the study), and most of our data were obtained from self-reports of participants; these features are limitations of our work, as is our inability to determine whether participants in the National Weight Control Registry are a biologically unique group whose results do not apply to others trying to achieve weight control. Despite these potential limitations, however, I think the information obtained from these subjects can be useful for clinicians treating overweight or obese patients.

The criterion for joining the National Weight Control Registry is maintenance of at least a 30 lb (6.6 kg) weight loss for at least one year, which I think most people would agree represents some measure of success.

Our purposes in establishing the National Weight Control Registry were 1) to identify a large group of people who successfully maintained weight loss; and 2) to quantitatively describe strategies used by these people to achieve and maintain weight loss.

The 4000 participants in the National Weight Control Registry have a number of characteristics in common that can be effectively used by those helping others to lose weight. Because our study was not a randomized, controlled study, we cannot be certain that the characteristics shared by registry participants contributed to the success of weight loss; however, we believe that the strategies used by these subjects to maintain their weight loss are sensible and could be used by others to help themselves achieve and maintain weight loss more successfully.

Weight Loss Study Results

Most subjects in the National Weight Control Registry are white women; men comprise only 20% of participants, and few minorities are represented. Most subjects are aged 44 to 49 years.

Most participants gained weight early in life. Forty-six percent were overweight by age 11 years, a quarter became overweight between ages 12 to 18 years, and 28% became overweight as adults. Forty-six percent of participants had one parent who was overweight, and 27% reported that both parents were overweight. Thus, many participants have an obesity

history predicting metabolic propensity to obesity and resistance to treatment.

Most registry participants (90%) reported previous attempts at weight loss. For most participants, these attempts consisted of weight loss followed by weight regain. Few participants successfully lost weight and maintained the weight loss on the first attempt. Most registry participants had used numerous popular diet programs.

How much weight did participants lose? The mean weight loss among all registry participants was 30 kg (66 lbs). Men lost slightly more weight than did women. The group maintained weight loss for a mean 5.5 years.

We could identify few commonly shared features of how these people lost weight. The only common characteristic was that 89% of registry participants used both diet and physical activity to lose weight: only 10% used diet alone, and 1% used exercise alone. This finding is very important because most weight loss programs focus primarily on dietary restriction. We could not identify any successful diet common to these people: Many reported that they restricted their intake of certain foods; some participants stated that they restricted the amount of food consumed; some participants counted calories or grams of fat consumed; some used prepackaged liquid formulas; and some used different kinds of exchange diets. We could not find factors common to the diets used by registry participants for weight loss. We studied people who lost weight on their own as well as people who lost weight by participating in a formal program. We found no major differences in outcome between these two groups. Women appeared to prefer a more formal program, whereas men preferred to lose weight on their own.

Motives reported by participants for losing weight showed little commonality: Some participants reported that they lost weight for health reasons; some, for lifestyle reasons (eg, to improve appearance in preparation for a wedding or class reunion); and some, for emotional reasons (eg, after a child asked why mommy was fat). In contrast, methods for maintaining weight loss had several factors in common. This difference in commonality suggests that the two processes—losing weight and maintaining weight loss—may have important differences. In particular, the optimum strategy for successful weight loss may differ from the optimum strategy for successfully maintaining weight loss.

Motives reported by participants for losing weight showed little commonality ...

The final common behavior among registry participants was that they engaged in extensive physical activity.

Behavioral Factors

We found four types of behavior common to the National Weight Control Registry participants: 1) eating a low-fat, high-carbohydrate diet; 2) eating breakfast almost every day; 3) frequent self-monitoring of weight; and 4) participation in a high level of physical activity.

Information about food intake was determined from questionnaires asking respondents to describe their intake of various foods. Although a great deal of error exists in self-reports of food intake, this method of data collection can provide some indication of usual diet. Registry participants almost certainly underreported their total energy intake, although this phenomenon is not uncommon among other populations of questionnaire respondents. Registry participants reported consuming 1300 to 1500 calories per day, of which 23% to 24% came from fat. This underreporting probably characterized total energy intake as well as energy intake from fat. Nonetheless, these subjects probably were consuming a relatively low-fat diet. Participants also reported that, on average, they ate out at fast-food establishments about once per week and ate four or five times per day.

The second characteristic common to these subjects was that they tended to eat breakfast regularly. This finding did not surprise us, but we were surprised that most registry participants ate breakfast every day without exception. Starting the day with breakfast may therefore be even more important for weight maintenance than previously thought.

A third characteristic relates to a controversial issue: Participants reported that they self-monitor their weight regularly. Many people recommend against relying on the scale to achieve weight loss, but we found that registry participants weighed themselves frequently: 75% of participants weighed themselves at least once per week, and many weighed themselves daily. Frequent weighing may therefore serve as an “early warning system” for these people. I suspect that when they have gained a few pounds, they implement strategies to prevent further weight gain. Although this possibility represents speculation, many participants told us that they have a plan for what to do if the scale reaches a certain number. Other studies have found that self-monitoring predicts success in long-term maintenance of weight loss.

The final common behavior among registry participants was that they engaged in extensive physical activity. As reported by participants, the mean energy they expended in physical activity was 2500

kcal/week for women and 3300 kcal/week for men. This level of physical activity is very high and equates to about 60 to 90 minutes of moderate-intensity physical activity per day.

Type of Physical Activity

Only 9% of registry participants reported keeping their weight off without engaging in physical activity. Substantial weight loss can be maintained with diet alone but occurred rarely in this group. Walking appeared to be the most popular form of physical activity, but most people also engaged in some planned exercise. Twenty-eight percent of participants used only walking as their chosen form of physical activity, and about half combined walking with another form of planned exercise (eg, aerobics classes, biking, or swimming). To quantify the walking done by this population, we placed pedometers on a sample of registry participants and found that, on average, they took between 11,000 and 12,000 steps per day—about 5.5 to 6 miles per day. Thus, these people exceeded by far the minimum physical activity recommended by the US Surgeon General.

Although we can confidently state that a great deal of physical activity is necessary to maintain substantial weight loss, our data does not necessarily help us to establish guidelines for the amount of physical activity necessary for primary prevention of weight gain. The Dietary Reference Intake (DRI) Committee of the National Academy of Sciences recently increased its recommendation for physical activity to 60 minutes daily;² for comparison, the US Surgeon General’s recommendation is for 30 minutes of physical activity daily.³ No current data shows how much physical activity is required to prevent weight gain in people who have never been obese.

We also asked whether this group showed any signs of “metabolic abnormality” that might be a factor contributing to weight regain. We measured resting metabolic rate and body composition in a group of 50 National Weight Control Registry participants and in 50 matched, never-obese control subjects. Because resting metabolic rate varies with lean body mass, we determined the regression line for this relation in each group. We found no difference between groups, a result suggesting that resting metabolic rate in registry participants was appropriate for their fat-free body mass. We thus found no indication that registry participants had a low resting metabolic rate that could predispose them to regaining body weight.

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Quality of Life

We asked participants how weight loss had affected their overall quality of life. Almost all participants (95%) reported that their overall quality of life was improved after weight loss.

To summarize, almost all patients who successfully maintained long-term weight loss used both diet and physical activity to lose weight. These people also shared strategies for maintaining the weight loss: eating a low-fat, high-carbohydrate diet; eating breakfast almost every day; weighing themselves frequently; and engaging in 60 to 90 minutes per day of moderate-intensity physical activity. Although we do not know for certain, we think that this behavior probably led to their success in keeping weight off. These characteristics could be effectively used as components of programs for helping overweight and obese people to achieve and maintain weight loss.

Patients who qualify for the National Weight Control Registry can enroll online at www.nwcr.ws. We hope people will be motivated to realize that if they can maintain loss of at least 30 lbs (6.6 kg) for at least one year, they can join this group.

After the presentation, Dr Hill answered questions from the audience:

Question: *What about patients who lose weight with bariatric surgery—how do they lose weight compared with people who lose weight through behavior change?*

Answer: We conducted a study⁴ in which a group of people who lost weight from bariatric surgery were compared with a matched group of registry participants. People who had bariatric surgery reported a much-higher-fat diet and engaged in much less physical activity than registry participants reported. Therefore, I believe that bariatric surgery affects metabolism differently than the way lifestyle change influences weight loss.

Question: *What is the role of naturopathy, herbs, or other alternative strategies in weight management?*

Answer: We have not looked at the role of complementary and alternative medicine in the National Weight Control Registry. However, I am skeptical about much of this kind of material because I have not seen any

**Patients who qualify for the
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scientific studies suggesting its usefulness for weight management. To be fair, however, few scientific studies on this topic have been done. We certainly need some research studies before we can conclude that naturopathy is useful for weight management. ❖

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Trina Histon, PhD, summarizes the purpose, methods, and scope of programs currently being offered

KP Regional Weight Management Programs

By Trina Histon, PhD

We at Kaiser Permanente (KP) can justifiably take pride in offering our members many options for attaining and maintaining healthy body weight. KP Regions offer many programs to meet the needs of children, adolescents, and adults who are mildly overweight to severely obese. This brief, general summary of KP Regional Weight Management Programs introduces to The Permanente Journal readers the purpose, methods, and scope of these programs currently being offered in many KP Regions.

Diverse Selection of Weight Management Programs

The broad diversity of weight management programs offered to KP members results from several factors. First, our membership is diverse: Our patients represent all ages, body mass indexes, ethnic and racial groups, health status, and other characteristics germane to weight management. A one-session weight management class can meet the needs of some Health Plan members, but other members want the continuing support of ongoing group and professional guidance throughout the long, complex processes of achieving and maintaining weight loss. Many overweight and obese members also have chronic disease and therefore need specialized resources not only to support weight loss but to help cope with chronic medical conditions while emphasizing each patient's critical role in influencing his or her future health status.

The diversity of these weight

management programs reflects the complexity of achieving and maintaining weight loss as well as the lack of evidence-based information about these processes, particularly the difficult process of maintaining weight loss. For example, we know from the Finnish Diabetes Prevention Study Group¹ that intensive lifestyle intervention for people with impaired fasting glucose can delay onset of diabetes, but we do not know whether this strategy is effective for other medical conditions. In addition, although we know that the core component of effective weight management programs is information—about diet, nutrition, physical activity, and methods of modifying behavior and maintaining weight loss—we have not yet identified what components, if any, are most effective for specific populations. All KP Regional Weight Management Programs offer various versions and combinations of these resources.

Relation Between KP Organizational Strength and Successful Weight Management Programs

With an estimated 4.4 million overweight or obese adult KP members nationwide, we are challenged to take a population-level approach to weight management. What types of intervention can address the growing prevalence of excess weight most effectively and efficiently?

The unique strengths of KP's organizational structure enable us to parse the problem of epidemic excess weight into segments, each of which can be matched with a problem-solving strategy. Our organizational structure facilitates active collaboration among researchers inside and outside KP and allows us to track new recommendations from outside entities such as the US Preventive Services Task Force, an

independent panel of experts in primary care and prevention. In addition to ongoing or completed evaluation of weight management programs, several KP Regions are standardizing forms for evaluating patients at intake, assessment, and follow-up to facilitate more systematic study.

We must continue to develop weight management programs in the absence of definitive, long-term study results. As our knowledge base increases, we can improve programs by eliminating nonessential elements and augmenting effective ones.

Current weight management programs in each KP Region are described in the next section and are summarized in Table 1.

Current KP Regional Weight Management Programs KP Colorado

In partnership with the American Heart Association's *Slim for Life* program, KP Colorado has, since 1997, offered a one-year weight management class for adults that encourages them to introduce dietary change and more physical activity into their lifestyle. During the year, participants attend seminars on weight-related behavioral issues (for example, motivation and "emotional eating") and meet five times with a case manager who assesses participants' progress. Par-

With an estimated 4.4 million overweight or obese adult KP members nationwide, we are challenged to take a population-level approach to weight management.



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ticipants who meet the criteria for pharmacotherapy are offered this treatment option, for which participants bear the full cost of any nonformulary medications prescribed. Of 262 participants who completed the program in 1999 and 2000, about 28% lost at least 5% of their initial weight, and 11.8% of participants lost at least 10% of their initial weight. Mean weight loss per person was 8.3 pounds—about 1.4 pounds per month.

Bariatric surgery is also available at KP facilities for Health Plan members who meet the criteria for this procedure, an open (transabdominal) Roux-en-Y procedure.

KP Mid-Atlantic States

For six years, dietitians in the KP Mid-Atlantic States Region

have offered a weight management class containing instructional material about several topics: healthy dietary change; beliefs and attitudes about weight; factors that influence eating and physical activity; and healthy lifestyle choices. This program has not yet been formally evaluated.

Members who meet the criteria for bariatric surgery may receive this surgery at non-KP facilities, where non-KP physicians perform the open Roux-en-Y procedure under contract with KP.

KP Northwest

In KP Northwest, a weight management program began in 1989 and gradually developed into three programs that range from a self-study guide, *Weight Loss Basics*,² to a 12-week program (or

alternatively, a five-week program) which encourages participants to develop new life skills instead of dieting restrictively. During both the five-week and the 12-week programs—which provide information about readiness to change, dietary improvement, and finding ways to increase physical activity—participants lose a mean 1.1 pounds per week.

In addition, members who meet the criteria for bariatric surgery may receive this surgery (the open Roux-en-Y procedure) from KP surgeons.

KP Northern California

Weight management programs in KP Northern California (KPNC) started in 1996 and now include a variety of adult-oriented programs, the cornerstone of which is a

multisession class, *Lifestyle and Weight Management Program*.

This class is facilitated by a team consisting of a dietician, a counselor, a health educator and/or exercise physiologist. At various sites throughout KPNC, the program is augmented by strategies such as offering group appointments or tailoring classes to specific issues (eg, medical weight management, self-esteem and emotional issues, and weight loss for African Americans).

A counseling protocol developed by the KPNC Regional Health Education Department on the basis of a four-session intervention is designed to help primary care clinicians to counsel members effectively about physical activity, healthy eating, and lifestyle change. A resource guide is available to help primary care clinicians and staff incorporate information about body mass index (BMI) into routine care and provide additional weight management resources for KP clinicians and members. Members who meet the criteria for bariatric surgery may receive this surgery either by KP surgeons or at non-KP facilities. KP surgeons and non-KP physicians contracting with KP usually perform the open Roux-en-Y procedure but sometimes use the laparoscopic approach.

Weight management programs tailored for different pediatric age groups are offered at KP and non-KP facilities. These programs are family-based, focus on behavior modification, and range from single classes to multisession programs.

Get More Energy, a poster developed by the department, is posted in pediatric and family

Table 1. Kaiser Permanente regional weight management programs

| Region | No. of centers | Components | Duration | Cost to member |
|--|---------------------|--|---------------------|--|
| Colorado | 6 | Health education; diet, physical activity, behavior modification. Case management. | 1 year | \$100-170 Nonformulary drugs at member expense. |
| Mid-Atlantic States | 2 to 5 each quarter | Health education; diet, physical activity, behavior modification. | 4 sessions | \$10/session |
| Northwest | 11 | Health education; diet, physical activity. Group support. | 5-12 weeks | \$60-140 |
| Northern California | 28 | Adults: Health education; diet, physical activity. Group appointment. Primary care counseling protocol. | 8-16 weeks | \$0-100 |
| | 20 | Pediatrics: Family-based health education; diet, physical activity, behavior modification. Group support. | 2-10 weeks | \$0-500 |
| Southern California | 12 | Adults: Health education; diet, physical activity. Children, adolescents, and caregivers: Health education; diet. Obesity Center. Meal replacement, counseling, behavior modification, telephone follow-up, telephone classes, weight maintenance. Case management. | 1 session to 1 year | Fees vary. |
| Group Health Cooperative, Ohio and Georgia | 3 | Health education; diet, physical activity, behavior modification. Meal replacement, telephone classes, weight maintenance. | Up to 18 months | \$15-35/week |

practice settings and is used as a training tool for pediatricians. The poster includes information about BMI and effective weight management counseling for children and families.

KPNC is collaborating with its Division of Research to evaluate this weight management program. Results of the evaluation will be available this year.

KP Southern California

At each of its 12 medical centers, KP Southern California (KPSC) offers a variety of weight loss programs ranging from single classes to extended programs lasting six months or longer. These programs teach behavior modification and methods of solving problems under close medical supervision. In addition, a unique, freestanding, fee-for-service metabolic obesity center operates in KPSC and offers classes tailored to specific issues, such as the effects of sexual abuse on weight.

For adult Health Plan members who meet the criteria for bariatric surgery, this treatment (the open or laparoscopic Roux-en-Y procedure) is available from KP physicians as well as from non-KP physicians who have contracted with KP to do the procedure. Weight management programs for adolescents and for their caregivers consist

of one or two sessions and address reasons for weight gain, caloric content of food (including "fast food"), low-fat cooking, and strategies designed to increase physical activity.

Programs about pediatric weight management are offered to parents and caregivers and teach about food choices, including the relation between fast-food consumption and weight gain.

This weight management program has not yet been formally evaluated.

Group Health Cooperative

Group Health Cooperative (GHC) provides four different weight management programs: meal replacement, weekly classes, individual contact (by phone or in person) with a health educator, or a combination of these services. Programs are tailored to members' needs and address such topics as weight maintenance and achieving various degrees of weight loss (ie, 10 pounds, 30 pounds, or more). At-home counseling is available for Health Plan members who are unable to attend classes at a clinic location.

For adult members who meet the criteria for bariatric surgery, this treatment (usually the laparoscopic Roux-en-Y procedure) is available at GHC facilities and is done by GHC physicians.

A five-year analysis of GHC weight management activities is underway. Results are expected to be available later this year.

KP Ohio, KP Georgia, and KP Hawaii

For members of KP Ohio and KP Georgia who meet the criteria for this procedure an open Roux-en-Y procedure is performed. Non-KP physicians perform the surgery under contract with KP.

Members who meet criteria in KP Hawaii receive surgery by KP physicians at a KP facility; the preferred procedure is laparoscopic Roux-en-Y.

Conclusion

This overview of KP Regional Weight Management Programs presents a region-by-region snapshot of where we are now and helps provide a roadmap for where we need to go. ❖

Acknowledgments

In facing the critical public health issue of weight management, KP is building upon the talents and dedication of hundreds of KP physicians and health care professionals working at the regional level. It is their innovation, commitment, and collaborative spirit that ultimately will allow KP to address the challenges ahead.

I would like to take this opportunity to thank some representatives from

Care Management Institute's Weight Management Clinical Network who have been working together on an interregional basis to develop tools, programs, and training to enhance our program's ability to respond to this epidemic quickly and with a solid understanding of the evidence. Thanks to them, also, for helping to ensure accuracy of these overviews for their regions.

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The Beginning

The beginning is always today.

Mary Wollstonecraft, 1759-1797, writer and feminist

Weight Management and Obesity Symposium

CMI is using a multidimensional, public health approach

An Overview of the Care Management Institute's Weight Management and Obesity Initiative

By William Caplan, MD
Trina Histon, PhD
Helen S Pettay, BA

Weight Management and Obesity Initiative Strategic Model, Focus, and Goals

As prevalence of overweight and obesity reached epidemic proportions,¹ clinical intervention alone became obviously insufficient to address the problem. In January 2002, the Care Management Institute (CMI) of Kaiser Permanente (KP) launched the Weight Management and Obesity (WMO) Initiative to develop and implement a plan to address this critical public health issue. The strategic model for weight management includes the following five interlocking components:

- a research network;
- successful practice dissemination;
- legislative and public policy;
- community partnerships; and
- clinical management—the keystone that holds the other four pieces of the model together.

This multidimensional, public health approach evolved through the expertise and commitment of a clinical network of stakeholders and experts within and outside KP. Clinical leads included Warren Taylor, MD, KP Northern California; Jonathan Brown, PhD, Center for Health Research, KP Northwest; Scott Gee, MD, KP Northern California; Gary H Wong, MD, KP Southern California; Sasha Stiles, MD, Codirector, Multidisciplinary

Weight Management Program, formerly KP Hawaii, currently KP Northern California; and Keith H Bachman, MD, KP Northwest. This clinical advisory group documented the current “KP landscape” in weight management, delivered initial tools and strategies for primary care settings, and began a rigorous evidence review to identify optimal intervention.

Under the leadership of William Caplan, MD, and Trina Histon, PhD, of CMI, the initiative also set longer-term goals: to establish prevention and management of overweight and obesity as an organizational priority; to develop metrics to quantify effectiveness; to optimize and standardize program components; to develop evidence-based risk stratification approaches; and to enhance clinician and member skills through tools and education.

External Collaboration

Given the public health approach to combating such a complex and multilayered problem, CMI also sought external collaboration with other health plans, federal agencies, and academia to identify and disseminate effective models for prevention and treatment of overweight and obesity. Organizations represented in the collaboration have included the following: Centers for Disease Control and Prevention, HealthPartners, National

Institutes of Health, Geisinger Clinic, Robert Wood Johnson Foundation, American Dietetic Association, American Academy of Family Practice, American Association of Health Plans, North American Association for the Study of Obesity, and International Life Sciences Institute Center for Health Promotion.

KP/CDC National Meetings

One of the strongest collaborations has been forged between CMI and the Centers for Disease Control and Prevention (CDC). As part of that partnership, a working group was formed with the goals to identify practical, effective non-surgical approaches for the prevention and treatment of overweight and obesity; to increase the likelihood of adoption and implementation of these interventions and partnerships, thus leading to improved health outcomes for KP members and communities; to identify clinical research opportunities that support these goals; and to create a forum linking colleagues in the academic and research communities, federal agencies, and practicing clinicians who are actively engaged in assessing and implementing programs for overweight and obese patients.

Although the initial goals focused on the medical setting, the KP/CDC working group partici-

**One of the
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Centers for
Disease
Control and
Prevention
(CDC).**



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Helen S Pettay, BA, (right) is the Communications Director for the Care Management Institute. E-mail: helen.pettay@kp.org.

pants quickly recognized that an approach limited to medical settings would probably not be effective without reinforcing strategies in the community, workplace, and home. This recognition reemphasized the need for expanded partnerships between health care providers, communities, schools, nongovernmental organizations, and state and national government—especially between health care providers and payers at that level.

Four KP subgroups convened to address specific areas of concern:

- prevention and treatment of obesity in children and adolescents
- primary prevention in adults
- identification and management of adults at high risk
- treatment of severe obesity.

Weight Management Strategies Identified

Meetings, held in June and November of 2002, were structured to identify practical, effective strategies that could be rapidly implemented to help prevent and treat obesity among KP's 8.3 million members. Speakers were invited from numerous entities, including research, government, health care, and private industry as well as from KP.

Brief presentations, followed by long discussion, produced much insight and suggestions for population-based weight management strategies. The following section summarizes strategies by general category; presenters are attributed (in parentheses) and are listed in Table 1. (Many of these presentations were included as part of *The*

Permanente Journal's Weight Management and Obesity Symposium Vol 7, No. 2.)

Lessons learned from smoking cessation (Gee). Dr Gee described how successful smoking cessation program strategies do not directly transfer to programs for preventing and treating obesity.

How to talk to patients about obesity: stigma and discrimination (Brownell). Dr Brownell stated that attention to tone and technique is required to work effectively with obese members. Varying acceptability of terms used to describe excess weight exists among overweight and obese people, a factor making it necessary to test prevention and treatment messages for acceptability.

Prevention and treatment in children and adolescents (Dietz, Ham-

Table 1. Presenters from KP and Centers for Disease Control and Prevention at national meetings on treating and preventing obesity

| |
|--|
| Kelly Brownell, PhD, Director of the Center for Eating and Weight Disorders, Yale University |
| William Dietz, MD, PhD, Director, Division of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention |
| John Foreyt, PhD, Baylor College of Medicine |
| Scott Gee, MD, Medical Director of Prevention and Health Information, KP Northern California |
| Lawrence Hammer, MD, Professor of Pediatrics at Stanford University |
| Jim Hill, PhD, Director, Center for Human Nutrition, University of Colorado |
| Njeri Karanja, PhD, KP Center for Health Research |
| Esther Myers, PhD, RD, American Dietetic Association |
| Tim McDonald, PA, MHSA, Manager, Health Promotion, General Motors Corporation |
| Paul Nussbaum, Secretary, Department of Health and Human Services, State of West Virginia |
| F Xavier Pi-Sunyer, MD, Professor of Medicine, Columbia University College of Physicians and Surgeons |
| Nico Pronk, PhD, Vice President, Center for Health Promotion, HealthPartners |
| Tom Robinson, MD, MPH, Stanford University |
| Barbara Rolls, PhD, Guthrie Chair of Nutrition, Pennsylvania State University |
| Warren Taylor, MD, Director of Chronic Conditions Management, KP Northern California |
| Jim Sallis, PhD, Professor, San Diego State University |
| Sasha Stiles, MD, Co-Director, Multi-Disciplinary Weight Management Program, formerly KP Hawaii, currently KP Northern California |
| Victor Strecher, PhD, Director, Health Media Research Lab, University of Michigan |
| Deborah Tate, PhD, Assistant Professor, Brown University Medical School |
| Rodolfo Valdez, PhD, Epidemiologist, Division of Diabetes Translation, Centers for Disease Control and Prevention |
| Thomas Wadden, PhD, Director, Weight and Eating Disorders Program, University of Pennsylvania School of Medicine |
| Gail Woodward-Lopez, RD, MPH, Center for Weight and Health, University of California, Berkeley |
| George Isham, MD, MS, Medical Director and Chief Health Officer, HealthPartners |

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mer, Gee). Drs Dietz and Hammer addressed growing prevalence of obesity in children and adolescents and described a family-based, group behavioral program for overweight children and their parents. Family-based group weight control programs may be more feasible, efficient, and effective than individual counseling in pediatric primary care settings. Addressing cultural diversity in program design is crucial. Dr Gee presented a pediatric obesity prevention and treatment program based on a treatment room poster and on motivational interviewing.

Prevention and treatment in adults (Pi-Sunyer, Myers). Drs Pi-Sunyer and Myers discussed the Diabetes Prevention Program, the NIH guidelines for treating obesity, and the role of medical nutrition therapy. Obesity is a chronic disease, for which modest weight loss (5%-10% of body weight) offers considerable medical benefits. Lifestyle change (diet and physical activity) is the basis of therapy, and registered dietitians are preferable providers for addressing dietary issues.

Building a population-based approach (Taylor). Dr Taylor discussed components of addressing obesity at the population level. Primary and early secondary prevention are important, and a broad spectrum of programs is appropriate for overweight and at-risk members. KP must move ahead with programs in the absence of conclusive evidence about efficacy; incorporating measures of effectiveness into program design is important too.

Increasing physical activity (Pronk, Hill). Drs Pronk and Hill described pedometer-based programs to increase physical activity. Because the environment is important for promoting or discouraging

physical activity, community partnerships are needed to implement effective programs. Multiple points of entry to pedometer-based programs already exist at KP—mandating flexible program models—and broad worksite implementation at KP is fundamental.

Behavioral intervention (Brownell, Gee). Dr Brownell reviewed the current status of behavioral treatment in research trials, and Dr Gee discussed brief negotiation, a motivational interviewing strategy. Behavioral treatment is associated with increased weight loss, but the degree to which behavioral treatment can be offered in primary care settings at KP is not resolved. Brief negotiation increases primary care providers' confidence levels in addressing behavior change and can be learned quickly.

Bariatric surgery (Stiles). Dr Stiles addressed the need for a national database to capture information about all bariatric surgery patients because such a database is essential to developing models of care, best practices, and long-term effectiveness studies.

Role of interactive technology in supporting weight loss and weight maintenance (Sallis, Strecher, Tate). This panel presented their experience with computer- and Internet-based weight management technology. Computer-based programs apparently work for adolescents as well as for adults and allow individual participants to change more than one behavior at a time. Tailored messaging enhances effectiveness, and the Internet can be an effective way to deliver behavioral therapy components of weight management programs.

Nutritional approaches for preventing and treating overweight and obesity (Dietz, Myers, Rolls). These panelists discussed many

existing and potential—and potentially conflicting—key nutritional messages for preventing and treating obesity. For example, a simple and visually appealing construct is the energy density of foods; the related message focuses on lowering the energy density of food to control weight.

Definitions of the metabolic syndrome (Valdez). Dr Valdez discussed multiple existing definitions of the metabolic syndrome. Consensus is still emerging about what criteria define this syndrome. Impaired glucose tolerance, waist circumference, and triglyceride:HDL-C ratio are proposed indicators of metabolic risk.

Role of pharmacotherapy in weight management (Wadden). Dr Wadden discussed several studies evaluating effectiveness of sibutramine and orlistat for inducing and maintaining weight loss. Pharmacotherapy is useful as adjunctive therapy in weight loss programs, to which lifestyle change in diet and in physical activity is fundamental.

Culturally competent care for overweight and obese members (Karanja, Foreyt). Drs Karanja and Foreyt discussed weight loss intervention in African American and Mexican American populations, which are at much greater risk for obesity and related conditions than is the non-Hispanic white population. Community- and family-based intervention takes on increasing importance, socioeconomic and environmental issues change effectiveness of weight management intervention, and cultural differences regarding dietary preference and weight-related issues must be considered and respected. Cultural strength can form the foundation of effective programs, and community coalitions can address environmental issues.

Community-based intervention (Robinson, Woodward-Lopez). Drs Robinson and Woodward-Lopez addressed community- and school-based intervention. School-based programs to reduce TV viewing and to increase physical activity have proved effective, and community coalitions can result in rapid program development.

Purchasers' perspective (Isham, McDonald). Drs Isham and McDonald discussed weight management as viewed by employer-purchasers of health care services. A discussion of health promotion and prevention activities must be framed in terms that employers understand; return on investment is a successfully used concept, as is incorporating primary prevention in any discussion of more costly secondary and tertiary health care.

National, state, and community initiatives (Dietz, Nussbaum). Drs Dietz and Nussbaum described political and governmental initiatives to address obesity. All levels of community coalitions and stakeholders—such as physicians, parents, and educators—are fundamental to creating program and environmental change.

Clinical Management Tools and Resources **CMI Weight Management Source Book²**

A source book of weight management and bariatric surgery programs in KP also has been developed as part of the Weight Management Initiative. The purpose of the *CMI Weight Management Source Book* is to provide an informational resource for clinicians, administrators, and managers interested in improving care for patients who are overweight or obese or who are at risk of becoming overweight or obese.

The *Source Book* provides infor-

mation on the process of planning as well as building a business case for weight management activities and outlines key elements of both weight management and bariatric surgery programs throughout KP. The *Source Book* is intended to meet the needs of anyone within KP who wants tools, knowledge, and support for improving or creating a weight management program.

The *Source Book* provides an early snapshot of what KP currently provides to members regarding weight management activities. The book may also serve as a vehicle to further explore these themes and to help prioritize, standardize, refine, and evaluate approaches to weight management programwide. The resources are meant to help begin an active process of integrating appropriate models of weight management at the regional and local levels within KP to ensure that excellent care happens routinely and is not a matter of chance. The *Source Book* can be found at the Permanente Knowledge Connection: <http://pkc.kp.org>.

Guidelines

CMI is working with one of its health system collaborators (HealthPartners in Minneapolis) to conduct a literature review from which evidence-based guidelines, models of care, and successful practices for evaluation and treatment of overweight and obesity can be developed.

In addition, the initiative's subgroup focusing on identification and management of adults at high risk for overweight and obesity has been working with KP Regions to develop evidence-based guidelines on treatment for high-risk populations, eg, populations with impaired glucose tolerance and sleep apnea.

Posters and Tipsheets

Two clinical examination room posters, originally developed by KP Northern California's Regional Health Education Department, were modified by a subgroup to meet the needs of all KP Regions.

The posters can be used to raise awareness and to catalyze conversations between clinicians and patients in the framework of motivational interviewing. Posters have been printed in Spanish as well as English and include information directed to the Spanish-speaking culture. A tipsheet accompanies the posters and expands on key messages and action items in the poster.

Get More Energy, a poster designed for children and adolescents, incorporates the following messages in a colorful and motivating way:

- Get up and play hard
 - At least 30-60 minutes a day
- Cut back on TV and video games
 - No more than one hour a day
 - Remove TV from the bedroom
- Eat five helpings of fruits and vegetables a day
 - One fruit or 1/2 cup of vegetables equals one helping
- Cut down on sodas and juice drinks
 - No more than one can or small cup a day
 - Drink water when thirsty

The accompanying tipsheets, designed for children and adolescents and their families, can be used as a support tool by giving parents tips on how to better motivate and support their children in managing the children's weight. The goal is to have a *Get More Energy* poster in every pediatric examination room KP Programwide.

The *Getting in Balance* poster,

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printed in English and Spanish, displays motivational messages for adults:

- Get Up and Get Moving:
 - Be physically active, exercise for at least 30-60 minutes each day.
 - Walk more. Count your steps with a pedometer.
- Eat Healthy:
 - Eat at least five helpings of vegetables and fruit a day.
 - Replace soda and juice with water.
- Take Time to Take Care of Yourself:
 - Balance your work and relaxation to help manage stress.
 - Commit to small changes and healthy choices.
- Strive for a healthy weight; holding your weight steady is a great first step.

The accompanying tipsheets incorporate the Stages of Change model by asking: "How ready are you to make a change and to get in balance?"

The Body Mass Index (BMI) Wheel

Ascertaining body mass of patients is an efficient and important first step in helping clinicians treat patients who are overweight or obese. Many KP Regions use body mass index (BMI) charts. A BMI Wheel also has been developed and is being distributed to KP clinicians as part of structured training sessions. The BMI Wheel, which calculates BMI based on height and weight, has two sides: one side for adults and the other side for children. Having the BMI data enables clinicians to take a population-based approach to care by stratifying members according to their risk and treating them appropriately for their risk level. Plans call for the automated medi-

cal record being implemented within KP to capture BMI. In the meantime, clinicians are encouraged to chart both height and weight for their patients in the medical record. From the perspective of the health care system, knowing the BMI for KP membership allows us to profile by BMI not only risk of disease but also cost.³

Pedometer Program

A national KP workgroup has been formed to develop and implement a pedometer program in the KP Regions with employees and clinicians as its initial audience. The physical activity program includes selling pedometers to staff at a reduced price and encouraging them to participate in the 10,000 Steps Program developed by HealthPartners.⁴ Participants are asked to walk 10,000 steps a day and are sent health prompts, tips, and recipes via e-mail messages. Participants also register with a *10,000 Steps* Web site that helps them track the number of steps they've taken and gives them access to a reading room containing information about how physical activity improves health.

Almost every KP Region has implemented a pedometer program for KP audiences. Plans are that the programs will be shared with the Health Plan members.

Research Network

Establishing a research network has been an integral component of the initiative work. The approach has been to create cohesion in the research community by escalating information flow to increase energy and ensure participation. A KP Programwide research network comprised of 30 KP scientists in six regions was formed with the following objectives:

- Make KP's weight management programs and processes more effective and efficient
- Create and disseminate new knowledge
- Enhance KP's reputation
- Obtain external research funding
- Support the WMO Initiative

The KP Research Network also will collaborate with researchers outside KP through the HMO Research Network and academic scientists.

The Kaiser Permanente Garfield Memorial Fund also has established a Weight Management Research Initiative allocating funds for research to evaluate strategic issues in weight management within KP and in the community. The research initiative will be cochaired by a KP clinician and a researcher. A request for application (RFA) is expected by the end of 2003. The Garfield Fund may also be used in partnership with other funding opportunities from the Robert Wood Johnson Foundation and others.

Successful Practices Dissemination

Disseminating successful practices is one of the five components of the CMI public health model. Because of this, each KP Region has formed an obesity task force. These regional groups share strategies and tools and promulgate them at the grassroots level.

One of the most effective dissemination strategies to date is the motivational interviewing training being conducted by Dr Scott Gee in the KP Northern California Region. Dr Gee teaches clinicians how to help patients change behavior according to the Stages-of-Change

Ascertaining body mass of patients is an efficient and important first step in helping clinicians treat patients who are overweight or obese.

model. Dr Gee developed the program in the KP Northern California Region and, by request, has trained about 200 providers in KP's Southern California Region also.

CMI-sponsored workshops on the topic of weight management and obesity took place at the KP Primary Care Conference in April 2003. At that conference, KP members—who paid for their own transportation—spoke passionately about their experience managing their own weight and offered perspectives on their care experience at KP.

The *How-to Guide* is available on the Permanente Knowledge Connection Web site at <http://pkc.kp.org>.

KP and its partners also have made presentations at state and national medical conferences outside KP, including one at the West Virginia State Medical Association given by request of the National Governors Association. The talk focused on the clinical nature of the obesity epidemic and on the impact of bias and discrimination in clinical practice toward overweight patients. Presenters also gave an overview of and training in motivational interviewing.

CMI also has developed a *How-to Guide* for clinicians to assist them in making decisions about treatment options. The *How-to Guide* is available on the Permanente Knowledge Connection Web site at <http://pkc.kp.org>.⁵

Community Partnerships

CMI's WMO Initiative is designed to complement community partner-

ships that can help deepen and extend the knowledge base in this area. Numerous activities are underway. For example, CMI and KP's Community Benefit Program are working with community clinics in the area of overweight and obesity. Messages about weight management are included in the Educational Theatre production, "*Zip's Great Day*," and the "*Get More Energy*" posters have been adapted to incorporate pictures of the characters from the play. These weight management posters will be available at schools when KP Educational Theatre productions are staged there.

Influencing Policy and Legislation

The final piece of the interlocking public health model looks at changing societal structures to help prevent and treat overweight. In August 2003, a major national roundtable discussion will be held in Washington, DC, called "*Prevention and Treatment of Overweight and Obesity: Toward a Roadmap for Advocacy and Action*." The roundtable will include 45 to 50 people and will be structured around information in a white paper developed by KP. The objective of the meeting is to provide a forum for critical discussion among such diverse stakeholders as representatives of health plans and providers, employers, consumers, food industry representatives, researchers, analysts, community-based organizations, and policymakers.

In addition to KP's CMI and Institute for Health Policy, sponsors of the meeting include the American Association of Health Plans, Centers for Disease Control and Prevention, HealthPartners, the Robert Wood Johnson Foundation, and the Washington Business Group on Health.

The goals of the roundtable meeting are as follows:

- To summarize effective, evidence-based prevention and treatment strategies for overweight and obesity; and to apply lessons from other social change initiatives to weight control.
- To create an action plan for expanding the Chronic Care Model so that it effectively applies to the issues of overweight and obesity. The Chronic Care Model,^{6,7} developed by Improving Chronic Illness Care at the MacColl Institute for Healthcare Innovation in Seattle with support from the Robert Wood Johnson Foundation, identifies elements essential to high-quality chronic disease management. These elements include the community, the health system, self-management support, delivery system design, decision support, and clinical information systems.
- To identify short- and long-term public policy intervention or other actions that may be necessary to improve prevention and treatment of overweight and obesity.

Future Directions

The Weight Management Initiative signifies commitment of KP to address the critical public health issue of overweight and obesity in a comprehensive and sustainable manner. We have the good fortune of being able to build upon the talents and dedication of many physicians and other health care professionals and administrative support. Our links with experts and organizations external to KP have significantly strengthened our efforts and

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brought national recognition to KP. We have built a strong foundation and are well positioned to address the challenges ahead. ❖

Acknowledgment

Jennifer Green provided editorial assistance.

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The Vision To Plan

Our Medical Group and our Medical Care Program can accomplish all objectives ultimately if we have the vision to plan them well and the patience to develop and expand them when finances and other conditions make it possible.

*Ray Kay, MD, founding Medical Director of the Southern California Medical Group
This "Moment in History" quote collected by Steve Gilford, KP Historian*

soul of the healer



"Garden #1"
watercolor; pen and ink
By Stan Eskin

Mr Eskin has been a member of Kaiser Permanente for 31 years
and a volunteer at Irvine for the past seven years.

KP's New Man at the Helm: George Halvorson

George Halvorson took over the helm of Kaiser Foundation Health Plan, Inc, and Kaiser Foundation Hospitals in May 2002, succeeding David Lawrence, MD, and becoming only the fifth Health Plan leader in Kaiser Permanente's 60-year history. As the former leader of Minnesota's HealthPartners organization—a nonprofit, integrated health care system with many similarities to Kaiser Permanente (KP)—Mr Halvorson came to KP with a reputation as an outspoken advocate for cost management through quality improvement and system integration, as well as for a more patient-centered health system. He has vigorously pursued both these themes in his first year at KP, where implementation of clinical information technology, “next-generation” insurance products, and a “same-day access” program have been among his top priorities.

In May 2003, Mr Halvorson's fourth book on health care, *Epidemic of Care*, coauthored with George Isham, MD, was published by Jossey-Bass.

The Permanente Journal allowed Mr Halvorson a few months to adjust to his new responsibilities before requesting an initial meeting. He promptly responded with a gracious offer to sit down and let the conversation take us where it would. The following are excerpts from that tape-recorded conversation.

—Tom Janisse, MD, and Jon Stewart, Editors

On the Impact of Cost-Sharing Insurance Products

TPJ: *It seems to many of us in health care that the dynamics of the insurance industry are undergoing a fundamental change from the old world of community rating to something new, and we still don't know what to call it or how to deal with it. All these so-called “skinny benefit” plans that appeal to young, healthy people are just a part of a really broad change. How will we either avoid getting swept along by competitive demands to do the same thing or, alternatively, adapt to these changes in a way that keeps us competitive and yet preserves what we call Permanente Medicine?*

Mr Halvorson: There are a number of things we need to do in response to that serious challenge to our future. It's critically important that we have a system where patients are tied to us for their long-term care



and that the benefits we offer do not create a barrier to that care. We want patients coming in and getting the most appropriate care, and we want that care funded in appropriate and affordable ways.

At the same time, we need to be flexible as we do so that we can allow for some cost sharing with patients who want to have a lower premium. Many of our buyers are demanding that we do exactly that. I think we can be flexible in benefits without having an adverse impact on the quality of care. The trick is to not have benefits that are so “skinny” that they create major financial barriers to care or change patient behavior inappropriately. I'm sure we do not want to go into a “catastrophic care” kind of insurance model. On the other hand, some levels of risk sharing can cause people to be more frugal but not to avoid necessary care. But other, greater levels of cost sharing could cause people not to bring their children in when they should. That wouldn't be good. The right answer is in the middle.

We now need to be eternally vigilant in understanding, employer group by employer group, exactly what the impacts are of the benefits being offered by our competitors in each group. There may be times when it would be better for us not to be offering our coverage and care in some settings. It can be financially damaging for us to stay in a group where there is obvious adverse selection, for example, staying in group “X” and getting only 5% of the group's members and

We want patients coming in and getting the most appropriate care, and we want that care funded in appropriate and affordable ways.

that 5% are the people who use 50% of the group's total care dollars. Look at the distribution of health care costs—I keep coming back to these figures: 1% of the population uses 30% of the care. Five percent of the population uses 50% of the care. Seventy-five percent of the population uses 15% of the care. And so if we lose the 75% (using the least care) and only maintain the 5% (using the most care), there's no possible way we can come out financially, no matter how wonderful we are at providing care.

Seventy-five percent of the population uses 15% of the care.

Eternal vigilance needs to be tattooed on the back of the hands of our sales force as we go out and look at how we're being offered in various settings. At the same time, we can do some cost sharing ourselves, and as long as it doesn't create a barrier to care, we can create some benefit designs that direct people into more tightly managed care. We have pilot studies going on right now in various sites where we do a risk-pool analysis and compare our risk with that of another carrier. We have pilot agreements in place where we adjust our compensation at the end of the year if we have a less-healthy population. We're also working at the design stage on other risk-sharing approaches that would deal very directly with the adverse selection issue. But part of the underpinning of that strategy is that the employers have to believe in our value and want to help us in a risk-sharing situation. They have to believe in their hearts and heads that we are delivering great value relative to our care. If they believe that we are the premier deliverer of care, then they're likely to be flexible in terms of a structure of reimbursement.

On Discussing Cost of Care with Patients

TPJ: Permanente physicians have always practiced in the comprehensive benefit model of just taking care of patients. Whatever they felt was appropriate, they would order or do and assume that it was covered. With the rise in pharmaceutical costs, there's been the beginning of conversations with patients that physicians are not used to. That could become a significant part of the patient-physician interaction—"Which path should we take, given the deductibles you have or the kind of insurance you have." It seems to complicate the dialogue.

Mr Halvorson: That's going to be particularly relevant in those areas where we have seniors without drug coverage. The seniors are the heaviest users of prescription drugs. If we get forced into a position of not having drugs as a covered benefit, then that new

and potentially painful caregiver-patient dialogue will have to take place. We need to help our physicians understand how to manage that dialogue, because it's critically important to the seniors.

This issue is more problematic for prescription drugs than in other areas of care. For example, if someone has a \$500 deductible, that's not going to keep him/her from going into the hospital if a physician says, "I need to put you in the hospital." It will be unpleasant to write the \$500 check, but they're certainly not going to opt not to go to the hospital. I don't think that benefit approach is going to create a barrier to hospital care. These kinds of benefit packages do, however, ask patients to feel the pain of the price they pay with other health plans and with various insurance companies. And as we deliver a more efficient product, it will cause them to have more appreciation for what we're doing in that process. If we offer a deductible plan in competition with a Blue Cross or Aetna deductible plan, our inherent efficiencies should give us a price advantage that will make us more affordable and attractive to patients and consumers.

On Self-Care and Patient Empowerment

TPJ: Could this discussion between doctors and patients about the cost of care actually be an opportunity to have a connection that is a window on a more important topic of self-care?

Mr Halvorson: One of the side benefits of cost sharing could be to get consumers more involved in thinking about and talking about the treatment of their condition. We need to be prepared to take advantage of that opportunity and identify various ways patients can be involved in self-care, as well as some kinds of group care settings and various other settings that provide a higher level of efficiency and effectiveness.

I think we have the opportunity to create a truly informed patient and to create a dialogue with the patient that makes the patient a much more sophisticated self-caregiver. And if we do it in the context of an organized, integrated system where we're concerned about the patient's total health, I think that the potential for much better care is very high.

This is another area where the Internet can help. One of the things that we ought to be doing more is having the system reach out to patients with reminders about best self-care and appropriate care and having systems that at the time of care delivery prompt the

caregiver to remind the diabetic patient to do x, y, z in a systematic way. Basically, we should be able to offer individual customization of information in a very effective way at the time of care. There's a whole series of very positive and effective messages that we can convey when we reach out to the patient and say, "You're diabetic, and we're concerned. We'd like you to come in for a blood sugar or a mammogram. And, by the way, here are three things we'd like to remind you about." Patients in that communication environment feel cared for.

On the Quality Agenda

TPJ: *While the insurance industry is developing these insurance responses to the affordability problem, there seems to be a lack of attention to the quality agenda. Do you see an opportunity there for KP to again assert some leadership in terms of defining a quality approach to these same cost problems?*

Mr Halvorson: I think there's a huge opportunity there. I think there are two major forces going forward simultaneously in today's marketplace. One is the momentum of increased cost. That's creating a situation where employers are making decisions to avoid benefits, shift costs, etc. I've met recently with the leaders of more than a dozen Fortune 500 companies. Every single CEO in one-to-one conversation told me that his or her company is going to reduce benefits and increase consumer cost sharing. Everyone said that and most said it with some passion. That's one agenda—a lot of focus on direct cost. But the other major and important agenda is the quality agenda that Don Berwick at the Institute for Healthcare Improvement is part of and that the Institute of Medicine has been promoting through their patient safety and quality reports, such as *Crossing the Quality Chasm*.¹ People in Washington DC are finally looking at the Wennberg studies on practice variation. They have been around for a while, but they're finally beginning to have traction. It's a critical mass issue—an intellectual tipping point. When the American Diabetes Association says that two out of three physicians in this country are not delivering appropriate diabetic care and that diabetes is the number one single cost issue for Medicare—25% of all Medicare dollars go for the cure of diabetics—all of a sudden, many important policymakers are beginning to relate Point A to Point B on quality and cost and saying, "Wait a minute. Quality is part of the answer." There's a very useful momentum finally building on the quality side, and KP is better positioned than anyone in the country to seize that opportunity and show what can be

done. Now is the time for us to come through and really deliver on the potential of this model, because the world is now ready to hear the message. I think the timing is working very much in our favor right now.

On Service and Access Improvement

TPJ: *Can you comment on the relationship, in your mind, between service and quality? Does the consumer's experience of service alter perception of quality? Is better service better quality?*

Mr Halvorson: There's no question that the perception of quality goes up significantly when service improves. When we moved to an aggressive improved-access program in Minnesota (at HealthPartners), and then went back after the fact and asked patients about their satisfaction levels, the number of people extremely satisfied doubled. The other thing that was fascinating was the significant improvement in the perception of quality when appointments were conveniently available. People felt that they weren't getting quality care if they couldn't get in quickly. The quality didn't actually change a bit. The underlying quality was exactly the same before and after we implemented advanced access. But for patients, just getting in and having a face-to-face encounter with their Primary Care Physicians represented a quality encounter.

One of the things I'm really happy about is the consistent commitment across KP to move to some form of advanced access model, because I know that when it's finally in place the physicians are happier; the nurses are happier; and the receptionists are much happier because they're not dealing with grumpy patients sitting in the waiting room. Patients love advanced access, because they feel cared for, and they feel like the organization is on their side. It's win-win-win.

Keep in mind that the patient most likely to leave us at open enrollment is the very healthy one who visits us, at most, once a year. This patient, in effect, pays us \$2500 in an annual premium for that one visit. We need to give this patient a care experience that makes it worthwhile to pay us that \$2500 again next year.

On Team Care

TPJ: *The care of patients with chronic disease requires the expertise of health professionals from many disciplines. Can this occur just through a well-coordinated referral system, or is there a necessity for a high-performing team?*

The other thing that was fascinating was the significant improvement in the perception of quality when appointments were conveniently available.

Of course, it goes without saying that everyone in the entire process, starting with the patient, wants the teams to be physician-led.

Mr Halvorson: One of the greatest advantages we have in our model is the potential to practice in a truly team-based environment. When teams are in place and functioning, the morale of the team members goes up, the satisfaction of the patient goes up, and the quality of the care goes up. Team care truly does work. In order to get there, we need to have a systematic approach to team implementation. Teams don't just happen, or most of them don't. We need to help create them. However, most practitioners haven't been trained to work in team-like settings. There's a learning curve. But team support is a teachable skill. And once in place, it's something that people want to self-perpetuate.

Patients also like team-based care. Patients have a strong sense of wanting to have a direct relationship at a human level with their caregiver, and that's generally perceived to be the physician. But if you've got a team environment that feels like a team, functions like a team, and acts like a team, you get almost the same reaction from the patient, that "I was seen by my team."

Of course, it goes without saying that everyone in the entire process, starting with the patient, wants the teams to be physician-led. The relationship the patients value most deeply is the relationship they have with their physician. They're very happy to extend that to their physician and his or her team, but there's still a need for the physician to be seen as the individual personification of the group, or even as the personification of the organization. That's another reason why something like the advanced access initiative is important—because patients are seeing more of their own physicians, not the next available physician.

Of course, there's a special skill involved in team leadership, and it usually has to be learned. The style that works best is a style of participative leadership. The team needs a leader, but the team also needs a process that allows all the team members to feel valued, heard, and appreciated. That's critically important. The leader has to appreciate that perspective and deal with it appropriately.

On the State of the KP Partnership

TPJ: The relationship between the physicians and the Health Plan at Kaiser Permanente is somewhat different from the relationship you were accustomed to at

HealthPartners, where you had a staff model at the core and a fairly large physician network. Could you comment on the status of the KP partnership today?

Mr Halvorson: My sense is that our partnership process here is working exceptionally well. We're all talking through every issue, every agenda. We've spent a lot of time figuring out joint objectives and goals—we have a joint and mature vision for where the organization ought to go, and we have a sense of what roles we each need to play to get to that vision.

It's pretty remarkable and very productive. Dr Jay Crosson (Executive Director of the Permanente Federation) gave a talk recently to a medical society policy council. I would have been perfectly happy to take that talk word for word and give the same talk myself. I couldn't see anything that would have changed. I just gave a talk to a set of health care leaders in Los Angeles, and I used Dr Crosson's slides. I can't think of an area right now where we are not in sync. We want great care. We both want this program to be the model for America—for the world. In terms of the specifics of our current joint strategy, the commitment to an automated medical record is something that I believe in passionately, and I know that every single one of the medical directors is completely committed to that agenda. I think we are so well in sync partly because we talk so often and so much. I've been meeting with the medical directors at many of their board meetings, and it's an open agenda. Any issue that anybody wants to bring up is put on the table. Dr Crosson, in turn, comes to the KP Board meetings, and it's the same thing. That board is grateful to him for the superb contribution he makes. We have created a level of dialogue and communication that's pretty extensive, and I believe it's paying off in a comparable level of mutual trust targeted at a common vision of the future.

There's no reason for us not to be the best care system and health plan in the world. We have the resources, talent, expertise, patient base, commitment, vision, and strategy to get there. It will take hard work, but it definitely can be done.

This is a great place to be and a great time to be here. ❖

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Weight Watchers® Comes to TSPMG

—A Permanente Physician's Personal Testimony

By Laura Kale, MD

This photograph was taken at a Weight Watchers® “Mega Meeting” in January 2003. As a member of Weight Watchers® with a 77-pound success story, I was privileged to take part in this photo-op with Sarah Ferguson. Since then, The Southeast Permanente Medical Group has formed an agreement with Weight Watchers® so that our members can participate at a reduced price. I feel I can confidently refer my patients with the knowledge that this is a multidimensional, medically sound program. Also, because many of my clinician colleagues lacked basic knowledge on weight loss, I arranged with our CME Department to have a Weight Watchers® leader present the basics of the program in our medical offices as a one-hour “Lunch and Learn.”

Many patients in my OB/GYN practice ask me for help with weight loss, and there are others with whom I must broach the subject. From my own life experiences, patient counseling, and extensive reading, I have come to realize that weight control is a complex medical problem and that appropriate patient education is not easy. It is tempting to say “eat less and exercise more” when asked for advice, especially with the pressure of large patient loads. Many patients and



Laura Kale, MD, and Sarah Ferguson at Weight Watchers® “Mega Meeting.”

physicians have surprisingly little knowledge about nutrition. Few have a clear perspective of proper portion size. Exercise, for many, consists of “... a very physical job.” With young families, full-time jobs, and the stresses of day-to-day living, it is easy to rely on high-fat, high-calorie prepared and fast foods for meals. Factor in any psychosocial problems, and the complexities of diet and maintaining a healthy weight are magnified.

Weight Watchers® addresses many of these issues through sound nutritional advice, trained weight-loss

counselors, encouragement of regular exercise, behavioral modification techniques and the free maintenance program to address the even more difficult process of maintaining weight loss.

If we are going to make any headway in our battle against obesity and the resulting chronic medical conditions, we must have many different options for our patients. I have found Weight Watchers® to be a viable and cost-effective option, and I will very happily keep recommending it to my patients and will continue using it myself! ♦

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■ clinical contributions

Clinical Overview:

How Do I Treat the Adults I've Been Seeing with New Type 2 Diabetes?

Introduction

Diabetes mellitus has rapidly become an epidemic in the Western world, especially in the United States. The number of patients who present with diabetes, along with the closely associated obesity and metabolic syndrome (syndrome X), has exploded—in part because of the contemporary American lifestyle. Approximately 7.9% of all Americans have diabetes (up from 4.9% just a decade ago).¹ Although diabetes is more prevalent among Americans aged 60 years or more, increase in incidence is most rapid in those under 30 years, especially in the Latino/Hispanic, African American, and Native American populations.²

Diabetes is the sixth largest killer in the United States,³ and the overall risk of death among people with diabetes is about twice that among people without diabetes. However, the increased risk associated with diabetes is greater for younger people (that is, 3.6 times higher for people age 25 to 44 years versus 1.5 times higher for those age 65 to 74 years) and for women (that is, 2.7 times higher for women aged 45 to 64 years versus 2.0 times higher for men in that age group).² One million people are diagnosed with diabetes yearly, yet the estimate is that one of every three patients with diabetes remains undiagnosed.¹

Case Example

A resident working in the walk-in clinic calls you at home about a patient who is being seen for the first time. A 58-year-old Latino/Hispanic male who has been feeling weak and tired for the last few months, the patient has difficulty sleeping because he has to wake up so often to urinate. He also complains of weight loss, thirst, and blurred vision, even though he got new glasses two weeks ago. He hasn't seen his physician for several years and takes no medication. Physical examination reveals an obese Latino/Hispanic male with blood pressure of 164/88 mm Hg, dry mouth, and skin with decreased turgor. The rest of the examination shows normal fundi, heart sounds, prostate, and

feet. Blood glucose level, determined by fingerstick in the examination room, is 338 mg/dL (18.8 mmol/L).

Discussion

Diagnosis of Type 2 Diabetes

Although probable, Type 2 diabetes cannot be definitively diagnosed on the basis of this patient's presentation alone. The diagnosis of diabetes depends on any one of three criteria: 1) symptoms of diabetes and a casual blood glucose level of ≥ 200 mg/dL (≥ 11.1 mmol/L); 2) fasting (no caloric intake for at least eight hours) blood glucose ≥ 125 mg/dL (≥ 6.9 mmol/L); or 3) 2-hour blood glucose ≥ 200 mg/dL (≥ 11.1 mmol/L) during an oral glucose tolerance test (OGTT). The OGTT should be performed as described by the World Health Organization, ie, using a glucose load containing the equivalent of 75 grams of anhydrous glucose dissolved in water.⁵ A positive test result must be confirmed by any of these same three methods, but on another day, to authoritatively diagnose diabetes mellitus. Glycosylated hemoglobin (HbA_{1c}) levels are not currently used in diagnosis, although dramatically elevated levels provide presumptive evidence. The patient should be scheduled for a confirmatory test as soon as possible.

Treatment begins with self-management.

Treatment of Type 2 Diabetes

Aside from gender, this patient typifies new-onset diabetic patients. He is obese and has not been in close contact with the health care system.

Treatment begins with self-management. He does not smoke, but smoking cessation would be a priority if he did. Smoking in cases of diabetes increases the risk of cardiovascular disease by 35%.⁶ The basis of clinical management of Type 2 diabetes is emphasis on and frequent return to the basics of self-management: diet, increased physical activity, and home glucose monitoring. The patient should be referred to the basic diabetes classes offered at his care institution. If classes are successfully completed, diabetes self-care can improve glucose control and can decrease complications.⁷

By Alan D Jacknow, MD



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Because retinopathy can be present at diagnosis in a patient with Type 2 diabetes, the patient should be referred for retinal screening (dilated eye examination) too.⁸

The question of whether to treat this patient with diabetic medication at this time is difficult to answer. No long-term studies appear to evaluate this question. Although he presents with some acute hyperglycemic symptoms (such as blurred vision and nocturia), a three-month trial of lifestyle modification is recommended. If HbA_{1c} level is not reduced below 7.0% of total hemoglobin, pharmaceutical treatment is indicated. Again, when a desirable medication is sought, few studies compare treatment regimens directly. But the results of the United Kingdom Prospective Diabetes Study (UKPDS)⁹ strongly suggest that in obese patients, metformin (Glucophage) is the preferred drug for initiation of therapy. In a report from the UK Prospective Diabetes Study Group,⁹ treatment with metformin resulted in a 39% lower risk of myocardial infarction when compared with conventional treatment (primarily diet) but not when compared with intensive treatment with sulfonylureas—even when the same level of glucose control was achieved.

Metformin rarely causes hypoglycemia, an important advantage over other standard agents, and metformin causes less weight gain.⁹ Gastrointestinal side effects (nausea and bloating) are lessened by beginning with 500 mg daily. I like patients to start this regimen at bedtime, because the side effects seem better tolerated and because of the theoretical advantage to treating fasting blood glucose. I recommend gradually increasing dosage to a daily maximum of 2.55 g (850 mg three times daily). This regimen is contraindicated for patients with mild renal failure (creatinine clearance of <70 mL/min per 1.73 m²), active congestive heart failure, pregnancy, and hepatic dysfunction because of risk of developing of lactic acidosis. For the same reason, metformin is routinely withheld for 48 hours before certain radiologic and surgical procedures. No studies appear to have compared cardiovascular complications from thiazolidinedione versus metformin.

If metformin is contraindicated, thiazolidinedione (glitazone) may be a useful alternative. Glitazone therapy may be used in patients with renal insufficiency and mild hepatic dysfunction. In fact, early studies¹⁰⁻¹² suggest that thiazolidinedione may be a treatment for fatty liver disease, a common cause of liver dysfunction in insulin-resistant patients. The major side effect of thiazolidinedione is fluid retention, but recent studies¹³⁻¹⁵ suggest its safety for treating controlled congestive heart failure (class A or B). The

first thiazolidinedione, Rezulin (Parke-Davis/Warner-Lambert), caused hepatic failure that resulted in several patient deaths^{16,17} and was withdrawn from the market in 2000. For this reason, close monitoring of liver function is recommended, although few long-term liver problems have been reported.¹⁸

Most often used in the past as first-line therapy, sulfonylurea and insulin are today used more often in combined therapy for patients who do not have adequate glucose control from metformin or for whom metformin is contraindicated. Although sulfonylurea and insulin may still be used as first-line agents, they do not have the same positive cardiovascular effects as metformin. In addition, because insulin can control blood glucose more quickly, insulin is sometimes used at diagnosis to establish quick control and is then discontinued. High blood glucose levels have a stunting effect on pancreatic beta cells, so rapid control with insulin may maximize the effectiveness of lifestyle changes, metformin therapy, or both.

The UK Prospective Diabetes Study showed that excellent control of blood glucose (HbA_{1c} level <7.0% of total hemoglobin; fasting blood glucose level 80-120 mg/dL [4.4-6.7 mmol/L]; postprandial blood glucose level <180 mg/dL [<10.0 mmol/L]) reduces cardiovascular events in diabetic patients.⁹ We therefore recommend that treatment of diabetes include more use of combined medication therapy until these laboratory value goals are achieved.

Additional Forms of Therapy for Type 2 Diabetes

Two thirds of all diabetic patients die from cardiovascular disease, including cardiovascular accidents. Recent studies illustrate ways to decrease these risks. The Heart Protection Study¹⁹ evaluated ability of statins to prevent heart attacks and showed that statins lower risk of myocardial infarction in diabetic patients by nearly 20%, regardless of initial cholesterol level.

The Heart Outcomes Prevention Evaluation (HOPE) study²⁰ analyzed use of angiotensin-converting-enzyme (ACE) inhibitors in diabetic patients who had at least one other cardiac risk factor. The study showed a 25% decrease in combined risk of myocardial infarction, stroke, or death from cardiovascular disease when ACE inhibitors were used, regardless of their effect on blood pressure and even when used for normotensive (or well-controlled hypertensive) diabetes.²⁰ This decrease in risk was achieved without increased adverse effects, and the

... in obese patients, metformin (Glucophage) is the preferred drug for initiation of therapy.

... blood pressure in diabetic patients should be aggressively treated to reach 130/80 mm Hg or lower ...

same beneficial effect was seen in diabetic patients with decreased renal function (in a subgroup analysis, risk of cardiovascular disease increased with decreased baseline renal function (creatinine level >1.4 mg/dL [>123.8 mmol/L]).²⁰

Blood pressure control is among the most important interventions currently available for preventing diabetic complications. According to the American Diabetes Association, blood pressure in diabetic patients should be aggressively treated to reach 130/80 mm Hg or lower,²¹ a goal that frequently necessitates use of multiple antihypertensive drugs. The Hypertension Optimal Treatment (HOT) Trial²² examined effects of 75 mg daily aspirin versus placebo in 18,790 hypertensive patients, including 1501 diabetic subjects. Aspirin significantly reduced cardiovascular events by 15% and myocardial infarction by 36%.²² Fatal bleeding episodes, including intracerebral bleeding, were equal in the aspirin and placebo groups; nonfatal, minor bleeding episodes were more common in the aspirin group.²²

As a result of these clinical trials,^{19,20,22} we now recommend that men age 50 years and older and women age 60 years and older receive a statin, an ACE inhibitor, and aspirin without regard to baseline cholesterol and blood pressure levels. Because our hypothetical patient falls within these parameters, all three therapies should be started unless contraindicated. ❖

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To Alex at 3 a.m.

Demented baby, Daddy-held
Disoriented, labile mood, dysarthric cry

But behind clear eyes neurons myelinate
Donning long pants for the long day

Yet

All too soon neuronal antibodies find their prey
(You are your own worst enemy)
Aluminum and amyloid accumulate
Fibrils tangle

Dementia comes full spiral
A little old man cries in the night
And who will hold you then?

Proposal

I am afraid of being poor
You fear the darker nights
I tense before a stranger's door
You're terrified of heights

I dread the ache of lonely days
You're timid in a crowd
I'm phobic of a barren phase
You shrink from seeming loud

I fear the future, you the now
I compliments, you jeers
I the why and you the how
Your anger and my tears

Thy fears make me protective
And mine may make you strong
Though singly we're defective
Combined, we'll get along.

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By David Price, MD, Editor

■ clinical contributions

Evidence-Based Clinical Vignettes
from the Care Management Institute:

A Diabetic Patient with Renal Disease and Heart Failure

In previous issues of *The Permanente Journal*, our Clinical Vignettes have each highlighted a single disease state for which the Kaiser Permanente Care Management Institute recently developed evidence-based guidelines after systematic literature review. In this issue, we describe a hypothetical patient with multiple medical comorbid conditions—a situation most of us see every day. We asked several physicians to help outline an evidence-based treatment plan. Our respondents include:

- Jim Dudl, MD, Endocrinology, Southern California Permanente Medical Group, and Care Management Institute Clinical Lead for Diabetes.
- Tony Steimle, MD, Cardiology, The Permanente Medical Group and Care Management Institute Clinical Lead for Heart Failure.
- Mohamed Idroos, MD, Nephrology, Southern California Permanente Medical Group.
- David Sobel, MD, Primary Care Medicine; Director of Patient Education, The Permanente Medical Group; and Physician Co-Lead for Care Management Institute Self-Care and Shared Decision-Making.

The case presenter is Antoine Abcar, MD, Nephrology, Southern California Permanente Medical Group.

A 44-year-old man is seen in the adult primary care department as a new patient. He has a 32-year history of Type I diabetes mellitus and a two-year history of dilated cardiomyopathy (nonischemic). Results of previous evaluation of the cardiomyopathy include a normal coronary angiogram. The most recent echocardiogram, taken four months previously, shows normal valvular anatomy and an ejection fraction of 25%. About six months previously, an optometrist told the patient that he had mild-to-moderate diabetic retinopathy. The patient has had no previous surgery.

The patient has no known drug allergy. He does not smoke, drink alcohol, or use recreational drugs. He denies use of nonsteroidal anti-inflammatory or over-the-counter medications. His current medications include 70/30 insulin (25 U in the morning and 15 U at dinnertime), lisinopril (10 mg/day), and carvedilol (6.25 mg twice daily).

His parents and two of his brothers have hypertension; his father, one brother, and one sister have diabetes mellitus. His father was also diagnosed with coronary artery disease in his early 50s. The patient has no known family history of stroke, cancer, rheumatic disease, nephrolithiasis, hematuria, proteinuria, or renal failure.

He states that he feels well in general. His blood glucose values range between 105 mg/dL (5.8 mmol/L) and 245 mg/dL (13.6 mmol/L). He says he has no chest pain, shortness of breath at rest, or hematuria. Urine output has been good, but he has occasionally noted lower-extremity edema late in the day.

He seems mildly anxious about visiting a doctor but is otherwise in no apparent physical distress. He weighs 205 pounds and is 70 inches tall. Blood pressure measured in the left arm with the patient seated is 145/86 mm Hg. The pulse is 64 beats per minute. Funduscopic examination is difficult to perform. The oral mucosa is moist. Results of thyroid examination are normal, and no cervical bruit is heard. The lungs are clear. No heart murmur is detected except for possible intermittent S3 gallop. The abdomen is soft without organomegaly, mass, or bruit. Results of extremity examination are normal except for trace ankle edema. The patient has no foot ulcers, and the dorsalis pedis pulse is barely palpable bilaterally.

After obtaining the above baseline history and physical examination values, you order diagnostic tests (results are summarized in Table 1) and arrange for the patient to return for follow-up in two weeks. Complete blood count, as well as results of thyroid and liver function tests are normal. A chest x-ray film shows an enlarged cardiac silhouette without pleural effusion. An electrocardiogram shows sinus rhythm with left ventricular hypertrophy and left axis deviation.

Describe your general approach to the patient:

Dr Dudl: I'd start by thinking about the risk of complications and then what we can do to prevent them. As noted in our previous article in *The Permanente*

Journal,¹ I would suggest that the potential complications, in order of clinical importance, are congestive heart failure (CHF), cardiovascular disease (CVD), renal failure, blindness, amputation, and coma.

Dr Sobel: The patient has a complex medical history, and several visits are needed to understand his problems, life situation, and what he is doing to self-manage his conditions. I would let him know that I look forward to establishing a long-term partnership with him and to working with him to better manage these conditions. I would point out some of the “good news” about his health condition (eg, normal coronary angiogram, lungs clear at examination, normal serum creatinine level) while expressing my confidence that some areas could be improved and that we could better manage some problems (eg, HbA_{1c} level, CHF).

What additional history would you elicit at the patient’s follow-up visit?

Dr Idroos: I’d want to ask how he monitors his disease at home: Does he check his blood pressure at home? His weight? His feet? How often does he check his blood glucose level? I’d ask about symptoms of autonomic or peripheral neuropathy—nausea, vomiting, dizziness, and numbness of the extremities.

Dr Steimle: I’d also ask him about his dietary history, particularly regarding salt intake and also about exercise capacity. Dyspnea with exertion and especially orthopnea are important clues regarding fluid status.

Dr Dudl: Eliciting a history of diabetic ketoacidosis or hypoglycemic episodes is important to decide whether a coma prevention strategy is needed.

Dr Sobel: I would want to develop a better understanding of his priorities and concerns, the effect of his illness on his life, how well he is self-managing his medical conditions, and what motivates him. I might ask such questions as “What concerns or worries you most about your medical conditions?” and “How are your health problems affecting your daily activities, work, and family?” as well as “What are you hoping I can help you with?” I’d also like to know more about his social history, including work and family.

What additional physical examination should you perform?

Dr Dudl: Anyone with nephropathy and retinopathy is at high risk for neuropathy. We are not given the results of monofilament testing of the feet, but this testing should be done. If sensation to monofilament is absent at 10 g of pressure (a 10 g monofilament is vertically applied to specific points on the foot until monofila-

Table 1. Results of clinical diagnostic tests for hypothetical diabetic patient with renal disease and heart failure

| Test | Result |
|--|--|
| Serum creatinine | 1.4 mg/dL (123.8 mmol/L) |
| Serum urea nitrogen | 30 mg/dL (10.7 mmol/L) |
| Sodium | 135 mEq/L (135 mmol/L) |
| Potassium | 4.8 mEq/L (4.8 mmol/L) |
| Chloride | 102 mEq/L (102 mmol/L) |
| Bicarbonate | 27 mEq/L (27 mmol/L) |
| Serum cholesterol: | |
| Total | 215 mg/dL (5.56 mmol/L) |
| High-density lipoprotein | 44 mg/dL (1.14 mmol/L) |
| Low-density lipoprotein | 152 mg/dL (3.93 mmol/L) |
| Triglycerides | 94 mg/dL (1.06 mmol/L) |
| Glycosylated hemoglobin (HbA _{1c}) | 8.9% of total hemoglobin |
| Urinalysis: | |
| Protein | 1+ proteinuria |
| Microscopic analysis | 0-4 red blood cells/high-powered field |
| | 0 white blood cells |
| | 0 cellular casts |
| 24-hour urine total protein | 855 mg |

ment begins to buckle) and if the patient has foot deformity or amputation, risk of amputation is nearly 20 times that of diabetic patients who do not have these signs or history.² The presence of peripheral vascular disease will also clinically significantly elevate the risk of amputation.³ You would need to use caution about overinterpreting the edema because it could be from decreased oncotic pressure due to proteinuria.

Dr Steimle: To help determine whether the edema is from fluid overload, physical examination should assess jugular venous pressure.⁴

Dr Idroos: In addition to checking for peripheral neuropathy, orthostatic blood pressure and pulse could provide clues to autonomic neuropathy.

What additional diagnostic testing should be considered? Why?

Dr Dudl: I would think through the causes of CHF to determine whether other testing is needed. In this case, CHF was not caused by myocardial infarction or valvular disease. The patient has a family history of hypertension, his systolic blood pressure is still 145 mm Hg while taking two antihypertensive medications, and his electrocardiogram reveals left ventricular hypertrophy—all making hypertension a likely contributing factor to the CHF. Whether or not “diabetic cardiomyopathy” is a factor is not clear to me, and I defer to Dr Steimle regarding diagnosis and treatment. However, a recent review found that “diabetic cardiomy-

I would let him know that I look forward to establishing a long-term partnership with him ...

opathy” is a condition that poses clinically significant risk to patients⁵ and necessitates further treatment.

The patient’s coronary arteriogram was described as normal. I would, however, review the report or films because at times “normal” means no lesion with more than 30% to 75% luminal occlusion evident, and I would expect early lesions in a patient who has renal disease and a 32-year history of diabetes. The decreased pulses suggest presence of peripheral vascular disease; however, the decreased ejection fraction and beta blockade may be contributing factors. For confirmation, I would order noninvasive vascular studies of the lower extremities. However, even if no evidence of atherosclerosis were present, I would conclude (because presence of diabetes and renal disease increases risk for mortality⁶) that he has as high a risk of having a CVD event in the next ten years as someone who already has had myocardial infarction.

What medication adjustments would you initiate?

Dr Dudl: Because this patient is at high risk for CVD, I would focus on CVD prevention using the AABCC’s mentioned in our prior article: **A**spirin, **A**ngiotensin-converting enzyme inhibitors (ACE-I), **B**eta-blockers, **B**lood pressure control, and **g**luCose control.¹

Dr Idroos: The main objectives of therapy in this patient are to maximize cardiac function, to obtain tight glucose control ($HbA_{1c} < 7\%$),⁷ and to aggressively lower the low-density lipoprotein cholesterol level to < 100 mg/dL by using a statin. I would gradually increase lisinopril to a maximum daily dosage of 40 mg, gradually increase carvedilol to a maximum of 25 mg twice daily, and add spironolactone at 25 mg daily⁸ for the antialdosterone effect instead of for the diuretic effect. Furosemide will help prevent hyperkalemia resulting from hyporeninemic hypoaldosteronism caused by diabetes and from use of an ACE-I and spironolactone. I would consider using digoxin if needed for relief of CHF symptoms.

Dr Steimle: I would increase the carvedilol to 12.5 mg twice daily on the first visit and eventually maybe even to 25 mg twice daily (titrated slowly when the patient is euvoletic). I agree with increasing the lisinopril to 40 mg daily. If assessment of jugular venous pressure suggests fluid overload, I may need to add a diuretic agent, but I would increase the lisinopril first—sometimes it’s easier to increase the ACE-I dosage when patients are just “a touch wet.” However, if the neck veins are really distended and he has acute symptoms of CHF, I would probably add furosemide now. After titrating the lisinopril, if the serum potassium and creatinine lev-

els remain stable, I would add spironolactone at 25 mg daily. Spironolactone could be added earlier for its weak diuretic effect to counteract mild fluid retention not severe enough to require furosemide. If the patient is not taking furosemide but remains hypertensive despite these medications, I would think about adding either hydrochlorothiazide (HCTZ), as recommended by the ALLHAT⁹ Collaborative Research Group, or hydralazine.

Dr Sobel: Before adjusting any of the medications, I need to better understand this patient’s current adherence. I might say, “Sometimes it is difficult to remember to take your medication. Have you found this a problem? How often in a week do you forget? Have you been having any side effects or problems taking your medication?” I would acknowledge that he has a lot of different medications to manage and that I can work with him to make sure he understands how these medications are intended to help him as well as how to manage his complex medication regimen within his busy life. If I recommend that he change a medication or start a new one, I might ask, “Do you anticipate any problems with this treatment plan? What do you think you could do to help overcome them?”

Dr Dudl: I would start lovastatin at 40 mg daily, per our new Southern California Permanente Medical Group guidelines.¹⁰ This patient’s risk of CVD is similar to that of a person who has had myocardial infarction, and his low-density lipoprotein cholesterol (LDL-C) level is above the target level of 100 mg/dL (2.59 mmol/L). I would use caution going above 40 mg of lovastatin, however, because of increased potential for rhabdomyolysis in patients with renal disease. If creatinine clearance rate falls below 30 mL/min (0.50 mL/sec), then 20 mg of lovastatin daily is the maximum recommended dosage.¹¹

Glucose control has slowed progression of renal disease in patients with Type 1 diabetes by about 50%.^{7,12} Clearly, the target HbA_{1c} level should be near the normal range, as the DCCT study showed.⁷ Achieving tight glucose control in patients with Type 1 diabetes usually requires a variable dosage of insulin. I would change from 70/30 insulin to individual doses of longer- and shorter-acting insulin. However, I would not just change the insulin: I would also teach the patient how to adjust his insulin doses to achieve tight glucose control. For longer-acting insulin, I’d start with isophane insulin suspension (NPH) or Lente zinc suspension and progress to insulin glargine (Lantus, Aventis Pharmaceutical, Inc, Bridgewater, NJ) if needed. The long-acting insulin dose would be 50% of the total daily dose; 20 U daily would be a reasonable start. I would start

Glucose control has slowed progression of renal disease in patients with Type 1 diabetes by about 50%.

with 10 U of Lente zinc suspension insulin at bedtime and would teach the patient to increase the dose by 1 U every other night until his fasting blood glucose level is 80 to 140 mg/dL (4.44-7.77 mmol/L). Similarly, I would start with 10 U of Lente insulin in the morning and would increase the dose by 1 U every other day until the presupper glucose levels are in the same range. I'd also start a regimen of regular insulin of 5 U at breakfast and 5 U at supper and would then have the patient adjust this dose to keep his blood glucose levels to within the same range (80-140 mg/dL; 4.44-7.77 mmol/L) four to six hours after breakfast and dinner. To achieve this control, I would instruct the patient to use a sliding scale that adds one unit of regular insulin for every 40 mg/dL above 100 mg/dL.

What other resources are available to help you care for this patient? What self-care strategies can be used?

Dr Steimle: I would ask him to attend our heart failure classes (available at KP Northern California) and to participate in our heart failure management programs. I would also advise the patient to weigh himself daily and to exercise for his poorly controlled diabetes.

Dr Dudl: I would have the patient buy a blood pressure cuff and learn to adjust antihypertensive medication doses himself to maintain systolic blood pressure between 110 and 130 mm Hg. Glucose control is correlated with frequency of glucose testing,⁷ so I would emphasize that the patient check his glucose level at least four times daily until glucose control is achieved. Education in our insulin adjustment classes or with a diabetic nurse educator is often very helpful. If he is insensate to the monofilament at 10 g of pressure or has clinically significant peripheral vascular disease, he should receive education about foot care¹³ and/or have regular foot follow-up, each of which decreases the risk of amputation.¹⁴ Finally, close monitoring by an ophthalmologist is mandatory, because eye disease can worsen during the first two years of improved glucose control.⁷

This information is a lot for a patient to absorb and could be frightening as well as discouraging. What words would you actually say to the patient to give him hope? How would you help him figure out where to start?

Dr Sobel: I would begin by acknowledging his efforts and success thus far in self-managing his complex medical conditions. I would assess how much he

already knows about his conditions, home monitoring, prognosis, etc, and would praise, whenever appropriate, what he is already doing. I would find out what concerns him the most and what, if anything, he would like to change (diet, exercise, stress management, or nothing). Depending upon his medical need, interest, and motivation, I would offer him choices or resources, which might include the health information resources, discussion groups, and health encyclopedia available online to Kaiser Permanente members at (<http://kp.org>), patient education classes, and care management programs as appropriate. Above all, I would communicate realistic optimism and the need for a long-term partnership. I might say, "Although you have many complex medical problems, I am confident we can work together to help you feel better and to prevent complications. Many things can be done to improve your health and to lower your risk, and we can do them step by step."

I would offer him choices or resources, which might include the health information resources, discussion groups, and health encyclopedia available online to Kaiser Permanente members at (<http://kp.org>), patient education classes, and care management programs as appropriate.

Dr Dudl: I would tell this patient, "Some patients are frightened by their diabetes. However, every potential complication we have discussed has something you can do to prevent it. I am confident that if you do your share to improve glucose control and take the combination of medications as advised, you will decrease the risk of those complications and will feel good about yourself by taking charge." ♦

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The Doctor Inside

Each patient carries his own doctor inside him. They come to us not knowing that truth. We are at our best when we give the doctor who resides inside each patient the chance to go to work.

Albert Schweitzer, 1875-1965, philosopher, physician, musician, 1951 Nobel Peace Prize winner

Use of Acoustic Reflectometry for Home Monitoring of Otitis Media in a High-Risk Pediatric Population

By Sally J Bryan Cullen, MD, FAAP
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Abstract

Objective: To evaluate use of a home ear-monitoring device to reduce medical utilization and unnecessary office visits for otitis media in young children who have frequent ear problems.

Study Design: Prospective study of pediatric patients aged between six months and four years who had two or more office visits for any ear complaint in the previous six months. Subjects were randomized to a study group (n = 237) or a control group (n = 256). Parents of both groups were given general information on ear infections and middle ear fluid and were instructed to follow their usual procedure for scheduling a medical appointment if they were concerned about the child's ears. Each child in the study group received the EarCheck Middle Ear Monitor and detailed instructions for its use at home. The medical charts of both groups were reviewed after one year, and the physician office and emergency department (ED) visits for ear-related concerns were counted. At the end of the study, parents of children in the study group received patient satisfaction questionnaires by mail.

Main Outcome Measures: 1) Number of physician office and ED visits made by children in the study and control groups for ear-related problems during the study period; 2) Self-reported parental satisfaction with the health plan's efforts to reduce unnecessary physician office visits for pediatric ear-related problems.

Results: Paired t tests indicated no statistically significant difference between the control and study groups in total number of visits for ear-related problems. Mean number of total ear-related visits during the study period was 3.5 for the control group and was 3.4 for the study group; standard deviation was 0.25 for each group. These results were obtained whether the purpose of the medical visit was to rule out suspected ear infection or to conduct follow-up examination after treating an episode of otitis. Patient satisfaction questionnaires were returned by 127 parents of children in the study group and showed generally high satisfaction with the EarCheck Middle Ear Monitor: 70.4% of these respondents stated that they were either satisfied or very satisfied with the product, and 75.6% of respondents stated that they would recommend the product to other parents.

Conclusions: Use of a home ear-monitoring device did not decrease the number of medical office visits for ear concerns among a high-risk pediatric population. However, the product was well received by parents of this population, and parents expressed high satisfaction with the purpose of the study.

Introduction

Frequent visits to rule out acute otitis media or to verify resolution of middle ear fluid accumulation occupy a substantial number of pediatric office appointments and emergency department visits, many of which are unnecessary.^{1,2} Clinical studies and experience have shown that acute otitis media is difficult to diagnose by symptoms alone³ and is frequently overdiagnosed by parents of fussy children. To society, the cost of otitis media is huge in terms of medical costs and time lost from work for parents.⁴ An accurate, easy home method for detecting accumulation of fluid in the middle ear could substantially reduce these costs.

Several traditional, in-clinic methods already exist for documenting accumulation of fluid in the middle ear. These methods include pneumatic otoscopy, tympanometry, and tympanocentesis.⁵ Each of these methods has distinct drawbacks, including the need for special training, cooperation of the patient, and presence of an airtight seal in the ear canal. Reliability of each method often depends on the skill and technique of the examiner, and results can be difficult to reproduce. None of these methods can be used at home by parents.

A more recent technology using

... the cost of otitis media is huge in terms of medical costs and time lost from work for parents.

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acoustic reflectometry has been shown successful for home parental use in detecting middle ear fluid in their children.⁶ The device, the EarCheck Middle Ear Monitor, is a simple, painless tool that performs spectral gradient analysis of sound bounced off the tympanic membrane. Using a sensitive microphone and microprocessor to sort readings, the device rates levels of probability of middle ear effusion on a scale ranging from 1 (ie, a 3% probability of effusion) to 5 (ie, a 92% probability of effusion). Because the EarCheck Middle Ear Monitor does not require pressurization of the ear canal or an airtight seal, use of the device causes no discomfort to the child and gives results in less than five seconds. Comparative studies have shown that acoustic reflectometry is as effective as tympanometry and pneumatic otoscopy for diagnosing middle ear effusion⁷ and has a high degree of sensitivity and specificity.⁸

In a recent Gallup survey sponsored jointly by The American Academy of Otolaryngology-Head and Neck Surgery and MDI instruments, Inc (manufacturer of the EarCheck Middle Ear Monitor), 80% of mothers said they would be either comfortable or very comfortable monitoring their own children for middle ear fluid at home.⁹ Consumer studies have shown that, regardless of their educational level, parents can easily be taught how to use the EarCheck Middle Ear Monitor at home to detect middle ear fluid in their children and to take appropriate action on the basis of instrument readings.^{6,10} Concerns that parents might misinterpret the readings or insist on phone prescriptions have proved unwarranted.

The present study evaluated the effectiveness of home ear monitoring in reducing the number of unnecessary office visits for ear-related problems in a high-risk pediatric population. We hypothesized that 1) parents would be able to successfully use the EarCheck tool at home to check for middle ear fluid in their children; 2) parents would be able to use this information in deciding when to bring the child for an office visit; and 3) parents would be less likely to bring their children to the doctor for unnecessary ear-related visits if readings were normal. We also hypothesized that this improvement in quality of care and service to our pediatric patients would result in improved parental satisfaction.

Materials and Methods

Study Design

Patients for this study were enlisted from the Kaiser Permanente (KP) Roseville Pediatric Department. To identify prospective subjects and to solicit volunteers for the study, informational posters were displayed in

the waiting room and in examination rooms; referrals from physicians and nurse practitioners were accepted; and medical assistants and registered nurses practicing in the clinic identified patients who met the study criteria, which consisted of the following characteristics:

- age between six months and four years;
- in the past six months, had two or more office visits for any ear complaint (including diagnosed otitis media and serous otitis media), to rule out ear infection, or to recheck otitis diagnosed previously;
- no ventilation tubes in ear;
- no facial or ear deformity;
- no chronic perforation of the tympanic membrane; and
- current patient at KP Roseville and available for follow-up.

Patients identified as eligible for the study were sent to a registered nurse in the clinic for enrollment in the study. Inservice training was provided to each participating registered nurse to ensure that they fully understood the study and to demonstrate proper use of the EarCheck instrument.

A chart of random numbers was used to randomize patients into either the study or control group. Both groups received general information on ear infections and middle ear fluid as well as a consent form to sign. Parents of patients in the control group were instructed to follow their usual procedure; ie, when parents were concerned about the child's condition, they called the clinic for an appointment to have the child's ears checked. No further instructions were provided.

Parents of patients in the study group each received an EarCheck Middle Ear Monitor for home use along with detailed instructions from a clinic registered nurse on proper use and interpretation of the information obtained from the monitor. These parents were told to use the EarCheck Monitor when their child had an upper respiratory infection and any other symptom that suggested possible ear infection. If parents obtained a reading of 1 (fluid unlikely) or 2 (monitor) for the child, they were asked to continue monitoring at home unless they noticed other worrisome symptoms (eg, high fever or cough) that might warrant an office visit. If they obtained a reading of 3 or higher (consult physician) and the child had symptoms suggestive of ear infection, the parents were told to schedule an appointment. Parents were clearly told that antibiotics would not be prescribed over the phone on the basis of EarCheck readings and that, regardless of the reading obtained, the parents could schedule an appointment

for any reason they thought necessary. Parents were asked to demonstrate use of the monitor on their own child and to confirm their understanding of the readings. Parents were also given a phone number to call the registered nurse with any questions or concerns. The consent form and study design were approved by the Kaiser Permanente Northern California Institutional Review Board.

At completion of the one-year study period, questionnaires were sent to parents of all patients in the study and control groups. Questions for the control group asked only if the parents had purchased an EarCheck Middle Ear Monitor on their own during the study period and if they thought that a home monitoring device might be helpful in deciding when to bring their child to the office to be seen for ear problems. The questionnaire contained an additional area for comments. Parents of patients in the study group responded to a group of closed-ended questions with responses given on a scale of 1 to 5. An additional area for comments was provided at the end of the questionnaire.

Data Collection

During the enrollment period, which lasted from April 2000 through August 2000, 493 patients were enrolled in the study. Of these 493 patients, 256 were randomly assigned to the control group, and 237 were assigned to the study group and received an EarCheck Middle Ear Monitor. Each patient was then observed for 12 months, beginning at time of enrollment. No attempt was made to contact parents of patients during this time, but several parents returned to the clinic with a defective monitor or reported having difficulty using the device due to cerumen occlusion. In all cases, the registered nurse in the clinic was able to successfully resolve these problems with ear irrigation, further parental training, or a new monitor.

Blinded chart reviews were conducted by the lead author, who personally reviewed each chart to determine the reason for the office visit. Entries were cross-checked with the computer to ensure that all emergency department visits or office visits were recorded. Chart review yielded the following information:

- Total number of clinic visits and emergency department visits for ear-related problems during the study period;
- Number of visits to rule out new ear infection during the study period, and number of times the ears were normal at these visits;
- Number of visits for follow-up of a known ear

infection (ie, an ear recheck) during the study period, and number of times the ears were normal at these follow-up visits.

- Number of antibiotic prescriptions written for ear infections during the study period, including intramuscular administration of ceftriaxone.

Results

Review of Medical Charts

Of the 492 enrolled patients, 454 patients (55.1% male, 44.9% female) completed the study. Of the control group, 13 patients were removed from the study because tubes were placed, and six patients were removed from the study because their Health Plan membership was terminated (eg, due to a move from the Health Plan service area); in addition, one patient died of a neuroblastoma and was therefore removed from the study. In the study group, 24 patients were removed from the study because tubes were placed, and five additional patients moved or for another reason lost Health Plan coverage. The gender of the patients was approximately equal. Of the 452 patients who completed the study, 52.6% were aged 1 to 2 years, 31.3% were aged 6 to 12 months, 11.4% were aged 3 to 4 years, and 5% were aged 4 to 5 years.

Results of paired t tests indicated no statistically significant difference between control and study groups in total number of visits for ear-related problems. The mean number of ear-related visits during the one-year study period was 3.5 for the control group and was 3.4 for the study group (standard deviation 0.25 for each group). The mean number of office visits for suspected ear infections (ie, not for ear recheck) was 2.71 for the control group and was 2.69 for the study group (standard deviation 0.18 for the control group, 0.19 for the study group). The mean number of visits for ear recheck during the same period was 0.8 for the control group and was 0.67 for the study group (standard error 0.1 for the control group, 0.08 for the study group). The number of prescriptions for antibiotic drugs was similar: the control group had a mean of 1.8 antibiotic prescriptions written per patient, and the study group had a mean of 1.9 antibiotic prescriptions written per patient. Additional statistical analyses were performed (pooled t test, Satterthwaite t test, and folded F test) with no statistical difference between the control and study groups for each category.

Patient Satisfaction Questionnaires

In addition to evaluating appointment utilization, this study also examined patient satisfaction with the

... most parents (75.6%) stated that they would either highly recommend or recommend this product to other parents.

EarCheck Monitor in terms of several criteria: overall satisfaction with the product; ease of use; comfort with making decisions based on readings; improved understanding about ear infection and the need for antibiotic therapy; and cost. A total of 127 (53.5%) questionnaires was received from parents of the 237 patients in the study group. Results of the questionnaire suggest that parents were generally satisfied with the home EarCheck Monitor and found it useful. Most parents were either very satisfied or satisfied with the monitor overall (70.4%) and with its ease of use (70.1%). The training provided for using the monitor was satisfactory to 95.3% of respondents.

All but nine parents stated that they had used the monitor during the study period, and 76.7% stated that they were either comfortable or very comfortable making decisions about their child's ear problems on the basis of the information provided by the EarCheck Monitor. Parents expressed mixed feelings about whether they believed the EarCheck Monitor reduced the number of office visits for their child: 63.3% stated that they strongly agreed or agreed, 17.5% stated that they were unsure, and 19.2% stated that they disagreed or strongly disagreed.

Similarly, parental opinions varied as to whether the study improved understanding of middle ear infection: 66.9% of parents stated that they strongly agreed or agreed, 15% stated that they were unsure, and 18.1% stated that they disagreed that the study improved their understanding of ear infections. Similar results were obtained from parents when they were queried about whether the study improved their understanding of when antibiotics were needed for their child's ear problems. Overall, most parents (75.6%) stated that they would either highly recommend or recommend this product to other parents. Most stated their belief that the retail price of the monitor (\$110) was excessive and that they would be willing to pay \$40 to \$50 for a home ear monitor.

Discussion

Utilization of Medical Office Resources

This study evaluated use of a home ear monitoring device to reduce the number of office visits in a high-utilizing population of children: those younger than five years who had two or more ear-related medical visits in the preceding six months. The findings did not support the hypothesis that parents with a home ear-monitoring device were less likely to bring their chil-

dren for office and emergency department visits because of ear-related concerns. No statistical difference was seen between the control and study groups in total number of ear-related visits during a one-year period, number of new office visits, number of rechecks for known ear infection, or number of antibiotic prescriptions written.

Several explanations for these findings are possible. First, many parents stated they needed the reassurance of a doctor's assessment despite the readings on the EarCheck Monitor. Some parents did not trust the monitor readings; other parents had difficulty obtaining consistent readings. Many parents believed simply that visual examination was needed if they suspected ear infection. Moreover, other than the requirement of making a small copayment at each visit, parents had no substantial disincentive to making an appointment. Fewer parents of patients in the study group might have scheduled visits if the copayment had been higher or if the parents had not been members of a Health Plan.

In addition, many parents of patients in the study group brought their children for "ear-related visits," regardless of the EarCheck readings, because these parents were concerned about comorbid conditions (eg, purulent nasal discharge, cough, or fever). All parents were encouraged to schedule appointments, regardless of readings, when worrisome symptoms were apparent. Another limitation was the small sample size, which reduced our level of confidence in the study results. A larger study might have revealed statistically significant differences, particularly if the cost savings to patients was greater.

Patient Satisfaction Surveys

Despite the finding that office visits were not fewer in the study group than in the control group, the EarCheck Monitor was definitely popular with parents. Most parents were satisfied with the EarCheck Monitor and believed that it provided useful information. Parents also appreciated the effort made to reduce the number of unnecessary visits to the urgent care clinic or emergency department. Many parents stated that the monitor provided some sense of control when they had an irritable child who might or might not have an ear infection.

A sample of comments from parents provides a good example of patient satisfaction with the EarCheck Middle Ear Monitor:

"The product was great. It stopped me a few times from an unneeded doctor visit. My child would be cranky or pulling at his ears, and it would end up be-

ing nothing. The monitor would tell me to monitor my child, so I wouldn't go to the doctor."

"My child had numerous ear infections—the EarCheck confirmed my suspicions, and we were able to get her treated earlier. It's great!"

"I don't think it reduced the visits, but it gave me a better understanding of ear infection versus a cold. It confirmed that I needed to go [for a visit]."

"It was great to be able to check to see if fluid was present when my son had a cold. It saved me countless trips to the doctor just for an ear check."

"The EarCheck is a wonderful invention! It was accurate every time and is a wonderful diagnostic tool for any parent. It eliminates any guessing about fluid in the ears. More than once, it definitely kept us from making ear check appointments."

"I would recommend the EarCheck Monitor to anyone with a child. It saved me many times wondering if there was infection or not. Thank you!"

"I appreciate this study and have used this monitor a lot. I even let my daycare provider borrow it for her own children and for others at daycare." ❖

Acknowledgments

This research was supported by a grant from the Kaiser Permanente Innovation Program (IP Project 990006). A quantity discount on the EarCheck Middle Ear Monitor was provided by MDI Instruments, a subsidiary of Becton-Dickinson. (The EarCheck Middle Ear Monitor is no longer available through MDI Instruments.)

We greatly appreciate the contribution of the pediatricians and nurse practitioners at the Kaiser Permanente Roseville facility in referring patients to the study and in supporting the idea of clinical research in our department. Particular thanks to all our clinic nurses, who were vital and instrumental in the success of our project. Without their willingness to participate in screening and training our patients, this project would not have been possible in our busy clinic.

We also appreciate the assistance of the Kaiser Permanente Northern California Division of Research; and by Chad Cullen, MBA, of the International Quality Institute in Carson City, Nevada.

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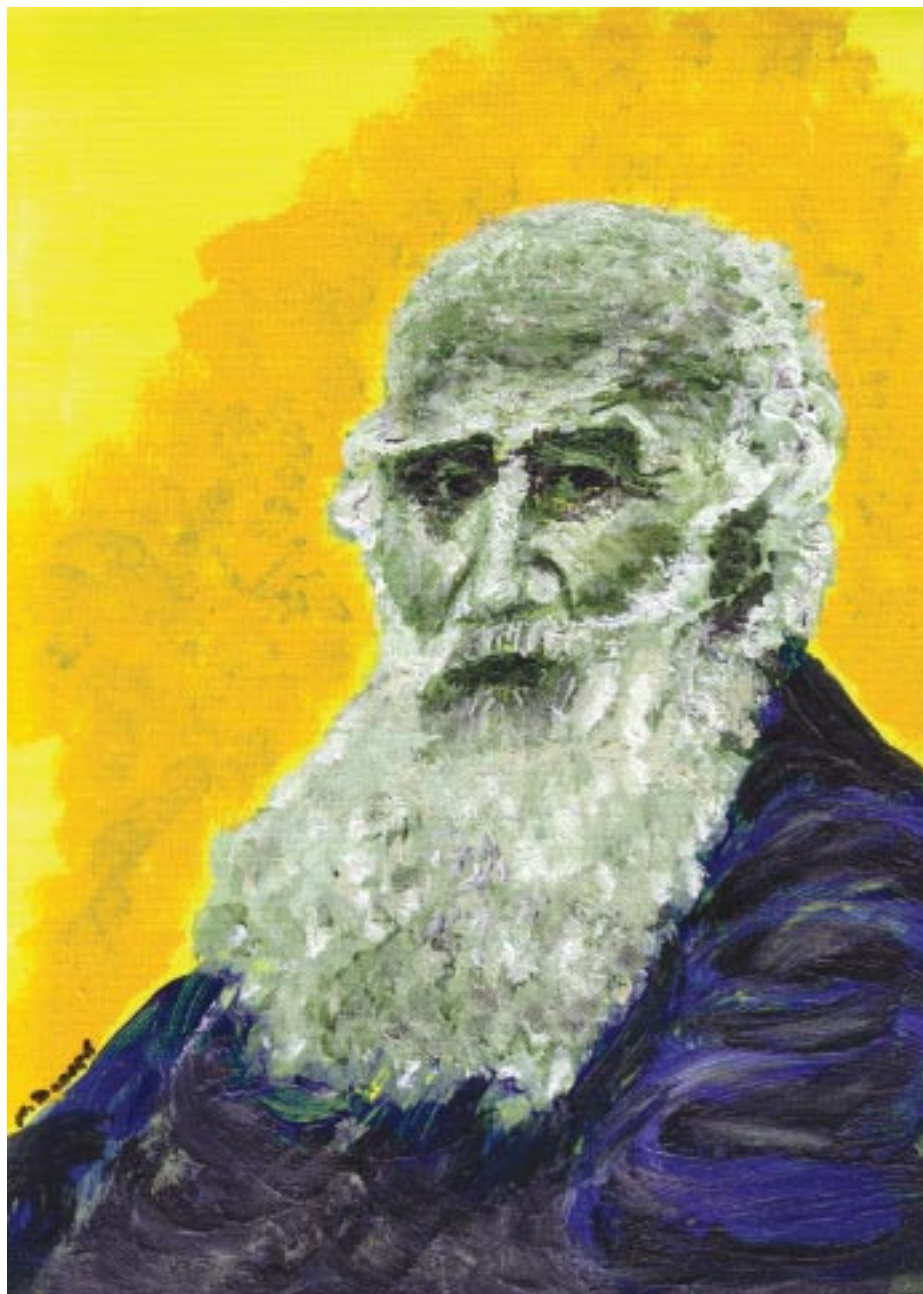
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Being Better

He who stops being better, stops being good.

Oliver Cromwell, 1599-1658, Lord Protector of England

soul of the healer



"Camille Pissarro"
acrylic on canvas paper
By Mitchell Danesh, MD

More of Dr Danesh's art can be found on the cover and on page 8.

■ health systems

The Letter of Condolence

By Cecilia Runkle, PhD

Reprinted and adapted from Ethics Rounds, Fall 2002.

“A physician’s responsibility for the care of a patient does not end when the patient dies. There is one final responsibility—to help the bereaved family members. A letter of condolence can contribute to healing a bereaved family and can help achieve closure in the relation-

ship between the physician and the patient’s family ... Whether intentional or not, the failure to communicate with family members conveys a lack of concern about their loss.”¹

It has been said that we are more likely to receive a condolence card from our veterinarian than we are from our personal physician.

In a recent column for *Clinician-*

Patient Communication,² Dr Scott Abramson, Neurology, Hayward, CA, tells the story of a young woman he talked with whose father died the month before, under the care of KP clinicians. She said, “After he died, I heard not one word from Kaiser. Not one phone call; not one condolence card. Doctors and nurses showed such great concern while he was dying; yet after his death, it was as if he never existed! I felt hurt. I felt abandoned.”

In a noteworthy article extolling the value of writing letters of condolence, Bedell, Cadenhead, and Graboys¹ outlined why doctors do not regularly write letters of condolence. Reasons included a lack of time, a feeling that they did not know the patient well enough, no specific team member was responsible for writing the letter, a loss for words, and difficulty with their own experience of the loss as a sense of failure.

Generally, in the larger context of medicine, the focus is on cure—not on what to do if a disease cannot be cured. Slow integration of palliative care, relatively few discussions about advanced care planning, delayed referrals to hospice, and reluctance to follow up with family members when our patient dies are all behaviors that show how difficult it is for those of us in health care to focus on dying and death. That is not to say that the will to do more is not there—culture and lack of training may be the culprits.

Doctors and Sympathy Cards

By Mark Geliebter, MD

As soon as the Code Blue ends in the emergency department all of the housestaff scatter. During my training, I was always struck by how quickly the doctors would leave the scene as soon as the patient was pronounced dead. There was no lingering—as if no one wanted to stay in the room with the dead person. The strategy seemed to be to create physical distance from any associated feelings of failure as a doctor. There was no ritual to follow at the end of an unsuccessful resuscitation effort. There was never any discussion about the ritual of death. We would spend weeks and weeks discussing the Krebs molecular “life cycle” in medical school. However, discussions about the natural cycle of life and death were rare. After practicing internal medicine for many years at Martinez, CA, I was struck by my own lack of closure when my patients died. I too would not hover at the bedside when a patient of mine had died. I would not routinely connect with family members after a death. Many years ago, I became involved in physician wellness efforts at my facility and regionally. I realized that exploring our own relationship with death and dying was a key element in physician well-being.

One of the outcomes of that exploration was the decision to start a new practice for myself in 1995. I began to list the name of every patient of mine who died. I generally would include a diagnosis, medical record number, date and place of death. I started a folder labeled “Death and Dying.” I also began to send a sympathy card to

Continued on next page.

A letter of condolence can contribute to healing a bereaved family and can help achieve closure in the relationship between the physician and the patient’s family ...

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In one small way, you can make a difference: to others and to yourself

Bedell et al¹ highlight the benefit of writing a letter of condolence as twofold: to be a source of comfort to the survivors and to help clinicians achieve a sense of closure about the death of their patient. In the sidebar on the previous page, Dr Mark Geliebter, Martinez, CA, describes how he began writing letters of condolence to his patients and the value this practice has had for him.

If you decide that writing a letter of condolence is a practice you

would like to begin incorporating into your medical practice, the following guidelines, adapted from Wolfson and Menkin's "Writing a condolence letter,"³ may be helpful.

- Address the family member. *Dear Mrs Wagner, ...*
- Acknowledge the loss and name the deceased. *Dr Murphy and I were deeply saddened today when we learned from your hospice nurse Lois that your mother, Ruth Smith, had died.*
- Express your sympathy. *We are thinking of you and send our heartfelt condolences.*
- Note special qualities of the

deceased. *It seems like only yesterday that Ruth talked about her love of card playing. I admired her energy and quick wit.*

- Note special qualities of the family member. *I was deeply moved by the devotion you and your family showed during the period of Ruth's final illness. Your concern was one indication of your love for her. Although she was a fiercely independent woman, I know she appreciated your involvement and help.*
- End with a word or phrase of sympathy. *With affection and deep sympathy, we hope that your fond memories of Ruth will give you comfort.*

Throughout KP Northern California, some departments, team members, and individual clinicians have chosen to routinely send letters or cards of condolence to family members when a patient dies. Clinicians report the deep satisfaction they feel in this act of follow-up; family members report their heartfelt thanks that KP clinicians took the time to recognize the family's grief and their role in the care of the patient. Letters of condolence can make all the difference—to our members and to us as clinicians. ❖

Doctors and Sympathy Cards

Continued from previous page.

each family (I later found these cards available as a KP stock item!).

Initially, I began with brief statements of sympathy. More recently, I've been writing more personal comments, especially when I've had a longer relationship with the person or their family. I frequently mention that I felt privileged to have been their physician. I also try to call the families that I feel connected to. I have received frequent positive feedback from families for my personal note or call. They are most appreciative of my thoughtful acknowledgments.

This has created a ritual practice for myself at the time of a patient's death. It also gives me a way to remember my patients. When I review my list, I can usually remember something about them, their faces, their personalities, or some ethical or medical issues that may have been challenging. Even after many years, the list elicits those memories. I would have totally forgotten many patients that had died if it weren't for my list. At times, it reminds me of memorial plaques on some synagogue or other walls that list names of members or their families who have died. Sending the sympathy card and making the follow-up phone calls have become part of my own sense of responsibility as a physician. It helps obviate the need to run out of the room after an unsuccessful Code Blue, as I did when a medical student. Integrating the reality of death; embracing it as a natural process; developing coping strategies; not labeling death as failure; finding rituals; doing outreach during and after the dying process are all part of our role as physicians. All of these insights and rituals will add to our own personal wisdom of dealing with the inevitability of our patients' and our own deaths. ❖

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■ health systems

Closing the Recruitment Loop

"To us, leadership is everyone's business. Leadership is not about a position or a place. It's an attitude and a sense of responsibility for making a difference."

— The Leadership Challenge; J Kouzes, B Posner, Jossey-Bass

One of the great things about being a Kaiser Permanente (KP) physician is working with highly talented, committed colleagues. Recruitment and retention of excellent physicians affects all physicians. We want to get the best so we can work with the best and ensure high-quality care for our patients. When you have a great candidate, do you worry you might lose him or her? Are you torn because you know that offering special incentives will set an expensive precedent? There is always the tension between giving away the store and being perceived as cheap. What is your role? When you are the final negotiator, you are responsible for helping the physician candidate make an informed choice. The desired outcome is a good fit for the new physician and the department. In some ways, you need to sell KP to the physicians. But, like a really good salesperson, you do that only if you believe it will be mutually beneficial. Never oversell!

I have interviewed successful recruiters inside and outside KP, and several Permanente Medical Directors and Physicians-in-Chief (PICs) to find out the successful

practices in "closing the deal" with a candidate. Here is a synopsis of their advice for you to consider.

1. Listen to the candidate. This practice establishes a climate of respect and elicits information about what is important to the candidate.

2. Money isn't everything. Most people are looking for more than a high salary. Find out what is important to the candidate. Ask questions, check with the recruiter, and get briefed by the chief of service. Factors important to the candidate could be research, stability, geography, housing costs, good schools, predictable income, autonomy of practice, or variety of practice.

3. You are important. Spending time with candidates communicates

Notes from the Forum Corporation's Research on Successful Sales^{1,2}

Hiring a recruit is not the same as selling a product; it is much more complex. However, when you are recruiting, you are "selling." There are things we can learn from successful selling practices. Some key points from The Forum Corporation's research are:

I. Focus on the physician you are trying to recruit (s/he is the customer).

The more you understand about the physician—what he or she needs, wants, expects, and values—the easier it will be to decide if your position is a good fit and to know how to make that position attractive to the physician.

II. Earn the right to advance in the conversation. (You don't want to move on and leave the customer behind.)

This usually is accomplished by asking questions, showing you have listened, summarizing, and getting agreement on what has been discussed, and asking permission to move on. For example asking, "Can we discuss ...?"

III. Persuade through involvement. (The more the physician talks, thinks, and participates, the more likely s/he is to feel positive.)

Using questions, telling stories, getting stories, seeing the interchange as mutual problem-solving will all help set up the kind of dynamic that leads to success.

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that you believe they are important and that you are selective about who becomes a Permanente physician. It helps candidates feel they are getting into an exclusive organization. Not everyone is good enough to be a Permanente physician.

4. *When discussing money, be straightforward.* Find out if candidates are looking at other offers and, if so, what the offers are. Remember the total compensation we offer may be worth more than other offers they have received. Total compensation includes: overtime, benefits, malpractice insurance, excellent retirement, small or no “buy-in” fees, and extra compensation for taking call or working extra sessions.

5. *Be aware of all the ways we are a good place to practice.* On the business side, for example, most Permanente Medical Groups predict your future earnings base. This is not contingent on how many patients you bring in. Our form of capitation is not going to be a horrible renegotiation process every year as it is in some practices. Another advantage the candidate will have is no need for “tail coverage,” ie, malpractice insurance coverage after leaving a practice. Ask yourself what kind of questions candidates ask about compensation, and be sure you can answer them, even if the candidate doesn’t quite ask.

Research on selling shows that high sales success correlates with 16 specific practices. Among these 16 practices, the ones that seem most relevant to recruiting negotiations are the following:

- Ask questions about the customer’s needs
- Ask about the customer’s situation (sales folk would say to ask about the customer’s company

Five Sales Techniques for Recruitment^{1,2}

1. Connecting—establish a personal bond with the physician

- Eye contact—helps to make both parties feel connected.
- Adapt—the physician will give you cues through body language, speaking patterns, so adapt your pacing and tone.
- Build rapport—smile and find common ground; a little small talk is ok, but not too much.

2. Encouraging—keep the physician participating

- Reinforce—nod, use supportive questions and phrases such as “That sounds interesting. Tell me more,” or “Please go on, I would love to know more.”
- Empathize—show that you understand the feelings; for example: “That must have been very frustrating.”
- Accepting—show that you heard what they said; for example: “I can see your point,” or “That is interesting.”

3. Questioning—discover the physician’s needs, issues, problems, and interests

- Use high-gain questions—questions that stimulate thought, evaluation, or feelings.

4. Confirming—be explicit about what you have heard and what you have to offer

- Summarize.
- Check for agreement.

5. Providing—giving information that creates a clear, positive image of you, KP, your facility, and the job

- Describe benefits—be able to say the many advantages of Permanente Medicine and KP. Emphasize the benefits you have discovered that the candidate cares most about.
- Be concise.
- Be enthusiastic—even though you are concise.

Tips ^{a, b}

1. Summarize their needs, consequences, and payoffs. Tie them to benefits.
2. Be direct. Act as you have during the whole relationship.
3. Be concise. Make each word count.
4. Think of objections as gifts of information. Remember, sometimes people say that money is the problem when there is a deeper or different issue.
5. Close with confidence. Expect that a physician would want to come here. Use that self-fulfilling prophecy to our advantage.
6. Do not fear silence. Remember, people need time to process and digest what you have said.
7. Affirm their decision to join, and thank them.
8. Follow up.
9. Don’t forget to generate the required paperwork.

- Explain the product's drawbacks (in our case, this means don't lie about KP's downside)
- Be concise
- Maintain eye contact
- Restate accurately what the customer has told you
- Show enthusiasm
- Answer questions

The medical director or PIC makes a huge difference in a candidate's interest in the position and in the decision to join KP. Get to know their needs, and help them to see

how we could meet them. If we can't meet their needs, don't promise we will. There is a balance between sweetening the pot and giving away the store. Remember, whatever you negotiate will not only have a long-term impact on you but on all your colleagues as well. ❖

- a. Marilyn Rado, Director of Physician Recruitment of SCPMG – personal communication spring 2002
- b. Patricia Finnegan, Director, National Recruitment Programs – personal communication spring 2002

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An Average Doctor

We find that in our group, an average doctor becomes a very good doctor and a good doctor becomes a superior doctor—but the below average doctor can't survive.

*Herman Weiner, MD, second Medical Director of SCPMG, describing the advantages of group practice in general and Kaiser Permanente in particular.
This "Moment in History" quote collected by Steve Gilford, KP Historian.*

Anorexia: The Scream on the Other Side of Silence

Anonymous

Why would one ever include autobiographical material about anorexia nervosa with articles on obesity? Many will be surprised that identical thought processes are often present in both: "Eating is the only thing left in my life that I can control."

Anorexia nervosa is still a condition of mystery and threat. Fifty years ago, serious physicians felt it was some yet-undetermined type of primary pituitary disorder. Now, physicians accept it as some yet-undetermined type of emotional disorder. Here we have the privilege and unusual opportunity to hear a woman describe her own thought processes—the method in her madness—during the course of several anorexic years. Surprisingly, most anorexic patients pass unnoticed through the offices of their physicians. We don't go out of our way to recognize that which we do not understand. And yet one wonders, disturbingly, how many patients might explain their problems clearly if we asked and listened?

— Vincent J Felitti, MD, Editor

I invite you to starve with me. You will not like it at first, but ask yourself this: Did you like the first cigarette you smoked? The first whiskey that burned your throat? The first "one-night stand"? Each of those "fixes" helped you in some way, didn't it? It gave you the power to feel better—at least for a moment.

If you will join me, you will learn just how empowering starvation can be. You will be in complete control of yourself and of the people around you. How many people can say that and know that it is true?

Be me. A 13-year-old girl, 5'6" tall, about 120 lbs. Your mother is long since dead. Your father doesn't want you to live with him. You are now serving your sixth year of what feels like a life sentence with his sister and her husband. Your aunt—"She"—sees everything about you as a reflection of herself. If your hair does not curl, there is not enough starch in your blouse, your tummy is not flat enough, your breasts not large enough, your shoes not polished enough, your smile not cheerful enough, then the neighbors will think She is not doing a good job. She

makes you spend hours cleaning, ironing, weeding, and such; She even lines up paying jobs—and yet you must get As—That is important. It is a reflection on Her.

You like school. You love to learn. Every new thought inspires you. You are one of the brightest, most industrious, most compliant, and still popular girls in your class, yet She calls you "a goddam intellectual" when She is angry with you—and She is often angry. Nothing you do will ever be enough. You know it. Every mirror you look into reflects a person who will never be what She is supposed to be, no matter how hard She tries.

You cannot hide from the mirrors. They own you. Your aunt owns you. You will never be free. There is no escape ... or is there?

You begin to cut back on the already-meager portions She gives you. Did She notice? You think She did, but She hasn't said anything about it. Cut back more. What does the mirror say? Hmmm, still fat. Cut back more. A week goes by, a month, and now you are eating almost nothing, three or four bites of food a day, maybe a soft drink once in a while. Sometimes you cheat and eat the apple from your lunch before you throw it into the trash bin. You are SO HUNGRY ... ravenous, and yet you watch that brown paper sack leave your hand in freeze-frame slow motion, hear it THUD at the bottom of the bin, knowing its contents would stop the hunger. You will not eat. If you eat, you lose.

You're tired all the time now, but look! Your clothes fit loosely—finally! Progress.

Your hunger is ravaging. You think of food all the time. The world takes on a clarity that you have never before noticed. You see every detail of every single thing. Sounds are louder, smells stronger. Another month goes by. You've lost 20 lbs. She notices! "Why aren't you eating? Are you sick?"

Oh yes, you're sick, but it is not the kind of sick that anyone can fix. You are on a mission to ensure that they cannot. You cannot let them get that close to you. If they do, they will hurt you. Oh yes, with hunger also comes fear—fear of absolutely everything. You're skittish. You jump at the slightest sound. You're wakeful, staring at the ceiling through the night. When you finally sleep,

nightmares shatter your rest. There is no peace, but it is the price you pay for screaming the silent scream of starvation—the price you pay for power.

And it is worth the pricetag. She is now very disturbed by your weight loss—but not for the right reasons. Not because She loves you. Does anyone love you? She rages, “I spent hours sewing that for you, and now it doesn’t fit you anymore!” VICTORY! Even your father notices. “Look at those arms! You’d better start eating. You look like a skeleton.”

All you think about is food—the sight, the smell, what it used to taste like. It doesn’t taste like anything anymore. Nothing tastes good to you. You’ve learned to replace hunger by imagining you’ve eaten. You feel the texture of mashed potatoes, sticking to the roof of your mouth. Your mental acuity seems to have sharpened—yet you have difficulty remembering. It is easy to slip into a trancelike state where you create your own reality—one in which She has no place.

In just a few months, you have mastered a most basic need: To eat. You are in control of your most essential self. In very little time, you have brought Her to her knees. She now begs you—begs you—to eat. She’ll do anything to make you eat. You have total power. You have won.

You’re almost 14 years old now and not a bad kid. You didn’t really want to upset anyone—much—you just wanted to make it clear that you are upset. Had you said that, She’d have slapped you across the face, pulled your hair, given you a week of The Silent Treatment, and still more chores. Words failed you, so you drew them a picture: a stick figure of you.

Have they learned their lesson? Should you let them off the hook? Or should you make them really suffer,

really sorry? Should you stop eating completely? You know what that means. You’ll die. Should you die?

You’re not a bad kid—not a stupid kid. Isn’t this taking it a little too far? Okay, you caught the firefly—do you really need to kill it too? No, let the anger go. Forgive them. Forgive yourself for being so angry with them. Let yourself live. Let them have the power back again. You held it for a while—a long and painful while. Now you know you’re stronger than they are. You know you can have the power back whenever you want it.

They were never trying to hurt you in the first place. ❖

According to the National Institute of Mental Health, “Females are much more likely than males to develop an eating disorder ... an estimated 0.5% to 3.7% of females suffer from anorexia and an estimated 1.1% to 4.2% suffer from bulimia ... The mortality rate among people with anorexia has been estimated at 0.56% per year, or approximately 5.6% per decade, which is about 12 times higher than the annual death rate due to all causes of death among females ages 15 to 24 in the general population.”¹

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Hope

Hope is the thing with feathers
That perches in the soul
And sings the tunes without the words
And never stops—at all

Emily Dickenson, 1830-1886, American poet

Pieces of the Past

By Susan Kalaher



The Quilt

This quilt remains to remind others of an experience shared by a group who came together to work on a common goal and who left behind a small piece of themselves.

The third week of class, I challenged the group to give up one article of clothing for every 20 pounds of weight they lost to symbolize giving up that size and not returning to it. I decided to use a circle shape to show that we are a part of each other. The background is new fabric to symbolize the new people, new shapes, we were becoming. The squares within the quilt were made from the fabric of the clothing I was given.

Each member of the group also helped to make for themselves a pillow using the same fabrics that make up the quilt.

Some of the thoughts members of the group expressed upon first seeing the quilt were: "We are all bound together through this quilt." "It makes me feel so proud." "I hope it can be put somewhere so it can be appreciated and can inspire others." "[When I see this quilt] I remember not to give up." "... because of the quilt, I didn't want to quit. I wanted my clothes to be part of the quilt." "The quilt is like little pieces of all of us. It is pieces of our past." ❖

Our experience over the past 20 years in Kaiser Permanente's Positive Choice Weight Program in San Diego, CA, has shown us that the underpinnings of obesity are varied, complex, and most often unconscious. The program lasts 20 weeks, during which participants are in an absolute fast—no food is eaten. The supplement, Optifast, is used to allow weight to be safely as well as rapidly lost. This is a time of great emotional stress because a favored coping device, eating, is given up. For some, the physical, emotional, or sexual protection afforded by obesity is also lost, worsening the stress. In one group, member Susan Kalaher decided to make a quilt, *Pieces of the Past*, to memorialize the efforts of those in her group.

— Vincent J Felitti, MD, Editor

HIPAA: What's True, What Isn't

By Simon Cohn, MD
Robin Dea, MD
Ted Cooper, MD

Preamble to The Health Insurance Portability and Accountability Act of 1996 (HIPAA)

"Public Law 104-191, 104th Congress—An Act to amend the Internal Revenue Code of 1986 to improve portability and continuity of health insurance coverage in the group and individual markets, to combat waste, fraud, and abuse in health insurance and health care delivery, to promote the use of medical savings accounts, to improve access to long-term care services and coverage, to simplify the administration of health insurance, and for other purposes."

You can find this information at: <http://aspe.hhs.gov/admsimp/pl104191.htm>.

Like motherhood and apple pie, preservation of patient privacy is universally accepted as a good thing. And yet, misconceptions about the Health Insurance Portability and Accountability Act (HIPAA) range from the slightly odd to the ridiculous. This article gives some examples of what's true and what isn't. Now that the first HIPAA Administrative Simplification deadline passed on April 14, 2003, physicians continue to sort through fact and fiction of this complex regulatory effort.

What Is HIPAA?

Using common-sense requirements, HIPAA makes Permanent physicians more conscious of confidentiality by supporting practice with added policies and procedures. Physicians already know many of the HIPAA basics—from not discussing patient information in elevators and cafeterias to making sure that computer passwords are kept confidential. HIPAA helps start identifying instances in which people might be inadvertently releasing protected health information (PHI). This is a beneficial result of HIPAA.

Being aware of our surroundings while completing routine tasks is crucial. Even the method used to handle trash can be a HIPAA violation waiting to happen. Physicians may have several trash bins—for recyclables, regular trash, and shredded documents. We must make a concerted effort to put garbage that may contain PHI in the right receptacle as well as to limit access to those receptacles to follow HIPAA guidelines.

Common HIPAA Misconceptions

Q. *I've heard it said that one cannot say a patient's name in a waiting room because that would be disclosing*

bis/ber PHI—that this is a no-no under HIPAA?

- A.** This is not a HIPAA violation; however, it is an example of one of the more "far-out" misconceptions rolling through medical hallways.
- Q.** *I've heard that I won't be able to discuss my patient's case with another physician. Would this violate HIPAA because I would be disclosing PHI?*
- A.** Since HIPAA is not intended to adversely affect quality or access to care. You may need to consult with another physician or health care professional regarding a patient's treatment, and this is allowed under HIPAA.
- Q.** *Patient charts are stored in a room that is not directly supervised by KP staff but is accessible to the public. The light is on in the room, the door is wide open and unlocked. What do I do?*
- A.** To reduce the risk of a HIPAA violation, you should shut and lock the door so patients' medical records are kept safe and secure. After locking the door, you should report the incident by following your facility's security incident reporting procedures.
- Q.** *Will hospitals where patients share rooms have to be remodeled to create single-bed rooms?*
- A.** No, HIPAA does not require this, according to the Privacy of Health Information/HIPAA Questions and Answers on the Department of Health and Human Services Web site.¹ For more details, see: http://answers.hhs.gov/cgi-bin/hhs.cfg/php/enduser/std_alp.php?p_sid=ySEcB8Eg&p_lva=&p_li=&p_page=1&p_cat_lvl1=7&p_cat_lvl2=%7Eany%7E&p_search_text=&p_new_search=1.1.
- Q.** *In an examination room, a physician's pager goes off while a patient is in the room. S/He steps away*

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Robin Dea, MD, (center) is the Chair, TPMG Chiefs of Psychiatry. E-mail: robin.dea@kp.org.

Ted Cooper, MD, (left) is Security and Confidentiality Consultant, PMG Clinical Information Systems. E-mail: ted.cooper@kp.org.



for a moment to use a phone in another room. If the physician uses a computer with PHI in the exam room, what should be done before leaving the room?

- A.** Before leaving the room, the physician should remove confidential information from the computer screen to prevent unauthorized disclosure and should lock the computer session to prevent anyone from accessing health information.
- Q.** *I heard I can't leave my patient a voicemail because others may overhear or retrieve the message before the patient does. Is this true?*
- A.** No. You can still leave your patient a message on his or her answering machine. To safeguard the patient's privacy, however, you should limit the amount of information you disclose on an answering machine. Unless asked not to do so by your patient, you are allowed to leave a message with a family member or other person who answers the phone when the patient is not home.
- Q.** *I heard that, under HIPAA, families can no longer eat with a patient they are visiting because they could find out additional information such as if he or she is on a restricted diet. Is this true?*
- A.** This is not true. HIPAA does not state that families can no longer eat with a patient. It's important to remember that HIPAA offers reasonable guidelines.

HIPAA Security

Privacy is just one part of HIPAA. HIPAA also has security standards (finalized in February 2003) and that work in concert with the final HIPAA Privacy Rule.

With a deadline of April 21, 2005, work is underway about how we will comply with the Security Rule. We

have a lot of work to do. Right now we're examining all parts of the Security Rule to create a plan to bring the organization into compliance. We will be performing risk assessments and making management decisions for appropriate security controls to make sure our patients' electronic information is kept secure. We'll be refining Kaiser Permanente's systems, policies, and procedures to take security to a new level to meet the HIPAA deadline less than two years away.

We're also waiting to see if the government will issue additional guidelines for further clarification of the Security Rule. We'll keep you posted. ❖

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Failure to Comply with HIPAA

Deliberately breaking HIPAA's rules could undermine member trust in Kaiser Permanente and could place staff and the organization at risk for penalties under HIPAA as well as other laws.

- HIPAA allows both civil and criminal penalties, including fines and possible time in jail.
- The Office of Civil Rights of the Department of Health and Human Services enforces civil violations, and the Department of Justice enforces criminal violations of the HIPAA Standards.
- Civil penalties are usually monetary fines. HIPAA allows fines of up to \$100 for each violation of the law, to a limit of \$25,000 per year for violations of the same requirement.
- Criminal sanctions for knowing misuse or disclosures of PHI carry fines of \$50,000 to \$250,000 and one to ten years imprisonment.

For more on HIPAA Administrative Simplification, see the Department of Health and Human Services Web site at: <http://aspe.hhs.gov/admsimp/>

Also see KP's HIPAA Intranet site at: <http://kpnet.kp.org/hipaa/>.

What is HIPAA?

In 1996, Congress enacted the Health Insurance Portability and Accountability Act (HIPAA).² HIPAA is a complex federal regulatory effort that has far-reaching effects on the health care industry—including health insurance portability and fraud prevention.

Although it is primarily aimed at ensuring portability of health insurance coverage, another part of HIPAA, called Administrative Simplification, is aimed at reducing the administrative costs of health care and includes electronic transactions standards, privacy, and security.

HIPAA offers many opportunities and benefits for the health care industry. It paves the way for full-scale use of electronic commerce by standardizing electronic transactions. It eases the transfer of information between health plans, providers, payers, and the government. It also provides rigorous safeguards to protect the confidentiality of patient information.

A Different Kind of Kaiser Reward

By Linda Bine

Adapted from an article in the March/April 2003 issue of "TPMG Forum."

Jokes about the "Kaiser Reward" have been around as long as Kaiser Permanente (KP). The not-so-funny punchline is that Permanente physicians who do a great job are rewarded with more work and less time in which to do it.

In 2000, the TPMG Board of Directors introduced a more desirable form of recognition to honor facility-based physicians whose contributions to the medical group have had regionwide impact in the areas of cost, quality, service, access, and/or professional satisfaction. Recipients are recognized at a special dinner where they receive a trophy and a modest honorarium. The TPMG Exceptional Contribution Award has now been given to 21 physicians in KP Northern California (KPNC). The six most recent recipients received their awards in May 2003.



Regional Genetics Service

Ronald Bachman, MD, (top) and **Edgar Schoen, MD**, (bottom) Genetics, Oakland, were honored for their contributions to the KPNC Regional Genetics Service, which is the largest clinical genetics program in the country, if not the world.



Their collaboration began in 1968 when Dr Schoen, then Chief of Pediatrics, Oakland, hired Dr Bachman to join his department. From the beginning, Dr Schoen supported Dr Bachman's desire to establish a clinical genetics practice and helped him to obtain a Kaiser Foundation Research Institute grant to do research and to create a cytogenetics laboratory.

In 1969, Dr Bachman joined forces with John Mann, MD, Pediatrics, Santa Clara, to develop the KPNC Regional Genetics Program, establishing centers in Oakland and Santa Clara (later moved to San Jose). Eventually expanding to Sacramento and San Francisco, this regionwide program now has 250 FTEs and provides a

full spectrum of genetics services: prenatal, neonatal, clinical consultations for children and adults, multispecialty clinics, and cancer genetics. "We are able to offer consistent, state-of-the-art services for our entire KP population in Northern California," says Dr Bachman.

The collaboration came full circle in 1990, when Dr Schoen stepped down as Chief of Pediatrics and Dr Bachman invited him to join the genetics department to oversee the KPNC Regional Genetics Screening Program. "Ed and I have always been able to work together collaboratively towards a common goal—most recently in developing a world-class genetics program," notes Dr Bachman.

"In my 49-year career with TPMG, I've been able to do everything I've wanted to do: clinical practice, teaching, clinical research, and administration," says Dr Schoen who retired in June 2003. "Working in the genetics department was a very satisfying finale to my career."



Clinical Information Presentation System

Steven Bornstein, MD, Ob/Gyn, South San Francisco, was honored for his work on the Clinical Information Presentation System (CIPS), the heart of KPNC's computerized medical record system, which allows providers to view a wide array of patient-specific data, from lab results and medication lists to imaging studies and hospital discharge summaries.

With a background in both computers and medicine, Dr Bornstein became the clinical sponsor for CIPS in 1995. He is now KPNC Regionwide CIPS Champion: providing strategic direction, working with teams of physicians and technicians to improve the system, and educating physicians about the power of CIPS.

"CIPS has been successful both because we've listened to the needs of the physicians and other clinicians who use it and because we've been able to make it very visible," notes Dr Bornstein. "It's become a part of our culture." Dr Bornstein has led the culture

Linda Bine is the editor of "TPMG Forum," a bi-monthly newsletter for physicians of The Permanente Medical Group. She joined TPMG in 1992 after 13 years with the American Heart Association. She also is co-author of *Helping Your Child Lose Weight the Healthy Way: A Family Approach to Weight Control*.

change—making presentations on regionally broadcast videoconferences, conducting workshops at the semi-annual KPNC Regional New Physician Day, and leading annual Grand Rounds on CIPS at every KP facility in Northern California.

“I’m not a techie person, I’m not a software engineer, and I don’t write code. But I’ve been fortunate to work with creative people who, like me, see a vision of how computer technology can improve the quality of care we deliver to our patients.” Currently, between 14,000 and 16,000 people log on to CIPS every day and view more than a million screens.

Urban Search and Rescue



Hernando Garzon, MD, Emergency, Roseville, was recognized for his contribution to the community through his work with Urban Search and Rescue (USAR). In 1992, his first year with TPMG, Dr Garzon joined a volunteer USAR team being formed in Sacramento. After three years of training and drills, he was called to respond to the Oklahoma City bombing—the first deployment of a USAR team in the country.

Each two-physician/four-paramedic team is charged with caring for entrapped victims that are encountered during the rescue efforts as well as for the 58 other members of their USAR team who may need medical attention. “Responding to a disaster is similar to the kind of unknown that we encounter in the emergency department—but on a massive scale,” explains Dr Garzon. “What interests me about both circumstances is the ability to bring order to a chaotic situation.”

Since the Oklahoma City response, Dr Garzon has been deployed seven times—for everything from a rock slide in Yosemite in 1996 to the collapse of the World Trade Center in 2001. Between deployments, he volunteers as Chairperson for the Medical Working Group of the National Federal Emergency Management Agency (FEMA), and as Medical Director for the California Office of Emergency Services, which oversees the eight USAR teams in the state. “The most rewarding aspect has been participating in training more than 400 California physicians and paramedics to do medical search and rescue,” comments Dr Garzon. “That’s as many as the federal government has trained in the rest of the country.”



Cardiac Care

Eleanor Levin, MD, Cardiology, Santa Clara, was honored for her pioneering work in cardiac care. Shortly after joining TPMG in 1989, Dr Levin worked on development of the Cholesterol Management and MultiFit (cardiac rehabilitation) programs at KP Santa Clara, which were soon adopted regionwide. She then collaborated on development of the KP Congestive Heart Failure (CHF) Program, which served as a model for regionwide CHF programs.

“People in professional societies and research institutions talk theoretically about how to do things better, but here at Kaiser Permanente we work together to effect change and improve patient care and patient outcomes,” notes Dr Levin. “We’re able to make a difference in people’s lives.”

In 2001, she documented the success of KP’s integrated, multidisciplinary approach to cardiovascular care and gained national attention by presenting an abstract at an American Heart Association meeting that demonstrated substantial decline in cardiovascular mortality among KP patients between 1990 to 1998 compared with the rest of California. “The wonderful thing about Kaiser Permanente is that we’re able to take a long-term approach to caring for our patients,” Dr Levin notes. “I never had any doubt that these efforts would have success, but I figured it would take eight to ten years.”

Dr Levin is currently KP Regional Chair of the Chiefs of Cardiology, Physician Manager of the KP Regional Cholesterol Management and MultiFit Programs, and KP Regional Chair for Population Management of Cardiovascular Diseases.



Adolescent Medicine

Charles Wibbelsman, MD, Adolescent Medicine, San Francisco, was recognized for his dedication to adolescent medicine. Dr Wibbelsman has been a champion for adolescents since 1974, when he wrote the “Dear Doctor” column for *Teen Magazine*. In 1982, three years after joining TPMG, he assumed leadership of KPNC’s only Teen Clinic, in San Francisco; throughout the 1980s and 1990s, he advocated for more adolescent medicine specialists and dedicated Teen Clinics—resulting in more than 15 today in Northern California.

“When you look at the three leading causes of death among adolescents—accidents, homicides and sui-

cides—they are all preventable,” comments Dr Wibbelsman. “This is an age group that can really benefit from preventive medicine, but you need physicians who can identify teens at risk and save their lives.”

“When caring for adolescents, you need to have skill in ‘parentectomy’—removing the parent from the room,” he continues. “It’s important to have time alone with the adolescent, one on one, so you can connect with them, listen to them, and be nonjudgmental.”

Dr Wibbelsman contributes in multiple ways to promotion of adolescent health: conducting clinical re-

search and publishing journal articles; writing books, including *The Teenage Body Book* and *Growing and Changing*; working with KPNC’s Regional Health Education to develop educational pamphlets for teens and speed-charting forms for pediatricians; participating in regional continuing education videoconferences; and serving as TPMG spokesperson on radio and television. He currently is KP Regional Chair of the Chiefs of Adolescent Medicine, serves on the Board of Directors of The Society for Adolescent Medicine, and is actively involved in research. ❖

If You Think You’re a Good Doctor

If you think you’re a good doctor and can give your patients good care, think how nice it would be if you could influence a whole medical group to follow your philosophy of care. That’s the opportunity you might have.

Irving Klitsner, MD, SCPMG pioneer, remembering Ray Kay using this argument to convince physicians he had identified as having management potential but were reluctant to take on assignments in medical administration.

This “Moment in History” quote collected by Steve Gilford, KP Historian.

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The Winter of Visions and Forgetting: A Novel of the Near Future

By Jack Birnbaum, MD

Review by Scott Prussing, MS



New York: Writers Club Press; 2002. ISBN 0-595-26011-X, paperback. 304 p; \$16.95.

The year is 2008, three years after some unspecified terrible event has ravaged New York City and has cost Dr Daniel Newman his wife. Now, his 11-year-old niece, Kate, has begun to experience a mysterious collection of medical symptoms: blackouts, increasing physical lethargy, and realistic visual hallucinations. As the symptoms worsen, Daniel promises his sister he will spare no effort to discover the cause of her daughter's illness and a way to cure her. He has little idea what this endeavor will ultimately entail.

In *The Winter of Visions and Forgetting*, Jack Birnbaum, MD, has crafted an interesting, fast-moving medical mystery that could have been pulled from today's headlines—or even tomorrow's. In the first half of the book, which is particularly good, Birnbaum teases us with hints of a horrific event that occurred three years previously. One such hint is given when Daniel takes Kate to a hockey game at New York's Madison Square Garden and muses how this sports mecca will never be the same—either for him or for the whole city. Not until page 88, after a number of other referrals to the “event” and its after-effects, do we finally learn what the disaster was. It would be a mistake to reveal it here and thus undo all Dr Birnbaum's good work.

Daniel's search for the cause of Kate's illness brings him into contact with several government agencies, including the Centers for Disease Control and Pre-

vention (CDC) and the Federal Bureau of Investigation (FBI), which seem to have a hidden agenda surrounding Kate's (and two other young girls') illness. Roadblocks are placed in Daniel's path to prevent him from becoming too involved in the investigation, but he stubbornly persists in pushing past all the bureaucratic obstacles. Eventually, he becomes intimately involved in the rush to find the answer and the cure. This last part of the book is not as strong as the first—it becomes a typical suspense novel and is not completely believable.

The Winter of Visions and Forgetting is easy to read

and is infused with pleasant bits of humor, including some funny jokes told by an FBI agent. One particularly clever bit in the book involves persuading an Arab suspect to talk by threatening to use hormones to turn him into a female—just as they did to Osama bin Laden when they found him! The dialogue is occasionally a bit wooden (characters sometimes speak the way people write, not how they talk) and some characters are stereotypical, but none of this really gets in the

... an interesting, fast-moving medical mystery that could have been pulled from today's headlines ...

way of the reader's enjoyment. A practicing internist working in primary care at the KP San Diego facility, Dr Birnbaum handles the medical parts well, and he shows a keen sense of his troubled protagonist's inner emotions. All in all, he has fashioned an interesting and thought-provoking first novel. ❖

Scott Prussing, MS, is a counselor for Kaiser Permanente's Positive Choice Wellness Center in San Diego. He earned his Master's Degree in Psychology from Yale University and is the author of several unpublished novels.

To Be a Great Writer

It's splendid to be a great writer, to put men into the frying pan of your imagination and make them pop like chestnuts.

Gustave Flaubert, 1821-1880, French novelist, in a letter written in 1851



Bloomington, IN: 1st Books Library, 2002, 396 p
\$19.95 [paperback]
ISBN: 1-4033-5140-6

Beating the Odds: A Boyhood Under Nazi-Occupied France

By George M Burnell, MD

Review by Vincent J Felitti, MD

Beating the Odds is the autobiographical story of a Jewish adolescence spent in Nazi-occupied, World War II France. The author is former Hawaii Permanente Chief of Psychiatry, George Burnell, MD. Another of Dr Burnell's books, *Final Decisions*, was favorably reviewed in *The Permanente Journal's* Spring 1998 issue¹ and provided a broad, sensible look at end-of-life decisions by and for dying patients. Although *Final Decisions* and *Beating the Odds* describe lives at opposite ends of a lifetime, both books share a theme of people doing their best under conditions of mortal threat.

This highly readable book discusses survival in situations where people have lost most personal control over their lives. The story illustrates the long-term effects of losing key attachment figures during childhood and of unexpected salvation by others—and how those events have impact decades later. On a larger scale, the book is a firsthand commentary on the most societally significant event of the twentieth century and raises questions that are relevant even today. Speaking of the tragic political inaction that led to a more advanced German military position when the United States entered the war, Dr Burnell comments, "It was not just the politics of isolationism in America that was responsible for the inertia, but also the fact that the Western [European] countries were not interested in getting help from the United States."^{2:p32} Dr Burnell uses the same analysis for current events: "Again nations are debating, who should intervene? Whose problem is it? How much money, weapons, arms, soldiers can we spare? Why can't diplomacy resolve this problem?"^{2:p214} Although

the story of the Vichy government, Marshal Pétain of the French Resistance Movement, and Nazi collaborators in France will not be remembered firsthand by all readers of this book, the story is one in which we all are actors: The names change, but the same story has been repeated throughout human history and undoubtedly will be again. We must therefore now ask ourselves the same questions asked about World War II: When is a horrible situation *our* problem? At what point should *we* resist and fight? When is it too early and when is it too late to intervene?

In the course of recounting the early part of his life, Dr Burnell has described, on an individual level, the universal problems we all face. "I was a child playing with toys when the war started and [was] going on sixteen when it ended. Like thousands of French Jewish teenagers, my growing years were filled with episodes of fear and terror, which would remain dormant and buried inside for years to come."^{2:p350} Dr Burnell closes this in-

teresting book by finding in war an epigram for psychiatry: "In the end, I think it is truly a wonder of the human spirit that people, when thrown into pits of despair, can rise against all odds and create a life of hope and meaning."^{2:p355} ♦

The story illustrates the long-term effects of losing key attachment figures during childhood and of unexpected salvation by others—and how those events have impact decades later.

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Vincent J Felitti, MD, has been with the Southern California Permanente Medical Group since its opening in San Diego in the late 1960s.

Lost in America: A Journey With My Father

By Sherwin B Nuland, MD

Review by Vincent J Felitti, MD



New York: Alfred A. Knopf; 2003. ISBN 0-375-41294-8. 212 p; \$24.00

Sherwin Nuland, MD, is an accomplished surgeon; he started as Chief Surgical Resident at Yale University School of Medicine; later, he won the National Book Award (in 1994) for *How We Die*.¹ His recent, short autobiography, *Lost in America*, differs from any autobiography I have ever read.

This book is about the shame felt by a poor immigrant's son for his family. In particular, it is about the revulsion felt by a loyal son for his father—and the damage sustained by his family as they changed cultures from Russia to New York City to seek *The American Dream*. The book is also about the intense effort of a bright young man to escape from the often embarrassing, occasionally warm world of his Jewish immigrant family in the Bronx to the “goyish” world of the Ivy League.

Nuland's autobiography is the story of the author's long day's journey into night. Professional success was followed by personal failure and divorce; ultimately, Dr Nuland became intractably depressed and suicidal to the point of accepting electroshock therapy, which was the alternative to frontal lobotomy, another treatment option offered to him during his serious, year-long hospitalization. *Lost in America* is a book written with such unsparring openness and honesty about the author's own feelings and motives that most readers will probably relate to it in several ways.

The following passage from the Introduction conveys a sense of the book and illustrates the author's skillful way of describing his close-yet-distant, isolating relationship with his father: “My father's power and

the weakness that nurtured it have accompanied me all the days of my life. I have struggled to be the un- him—to be the opposite of what he was—and in the struggling I have faltered and fallen many times. His lingering power over me has been the source of much of my weakness; I have responded to the threat of his weakness by seeking to find ways to resist it—to be so powerful against it that I am unassailable by that great portion of himself that he has left within me. And in the process, I have instead become rather more like him than less.”²

Dr Nuland's life is the story of a man's lifelong response to his father's rages and to the shame of his father's progressively unsteady gait, a condition associated with occasional bouts of pain that struck like lightning. The basis for these symptoms provides a medically interesting sidelight that is almost a relief from the intensity of the author's life story. This story is of a life spent trying to understand itself. The book's memorable opening quote, attributed to Philo of Alexandria, is also a fitting close: “Be kind, for every- one you meet is fighting a great battle.”

For physicians, *Lost In America* is meaningful because it is so easy for us to make ourselves unassail- able with what we know. ♦

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Vincent J Felitti, MD, has been with the Southern California Permanente Medical Group since its opening in San Diego in the late 1960s.

The Optical Instrument

Every reader finds himself. The writer's work is merely a kind of optical instrument that makes it possible for the reader to discern what, without this book, he would perhaps never have seen in himself.

Marcel Proust, 1981-1922, French novelist



New York: The New Press; 2002. ISBN 1-56584-729-6. 329 pages. \$27.95.

A Life in Medicine: A Literary Anthology

By Robert Coles, MD, and Randy Testa, Editors

Review by Vincent J Felitti, MD

Practicing medicine can be—and often is—an extraordinary experience because of the insight given us into other lives and because of its intensity, intellectual stimulation, and social importance. Nonetheless, we easily lose sight of this aspect of our profession when we are immersed in the pressures of everyday matters. Fortunately, books like *A Life in Medicine* sometimes come along to remind and reinspire us.

A Life in Medicine is an anthology of stories, poems, and extracts of books that help us to achieve a deeper understanding of what we do as medical doctors. Wonderful reading in itself, the book is also a meaningful introduction to the works of writers ranging from Anton Chekhov and Lewis Thomas to obscure physician-authors who have a superb talent for describing what they see and experience in medical practice.

Robert Coles is an unusual physician: He is a family friend of Ezra Pound and a medical student protégé of William Carlos Williams. He is a psychiatrist-sociologist who, as a teacher of literature at Harvard University, helps us understand our lives and what we do in medical practice, where we have the privilege of participating in the great dramatic moments of our patients' lives. The feel of *A Life in Medicine* is at times reminiscent of Williams' *Doctor Stories*,¹ and the book's concept is similar to that of Norman Cousins' *The Physician in Literature*.² Perhaps these similarities should come as no surprise, because, as stated in the *Preface*, "The work of medicine in considerable part rests on the doctor's ability to listen to the stories that patients tell; to make sense of these often chaotic narratives of illness ... and to understand what these narratives mean at multiple (and sometimes contradictory) levels"³

This book is a valuable resource for physicians who wish to explore the meaning of their professional

lives. The stories and poems selected are wonderful, sad, insightful, and occasionally funny. Not only can they help us see our work through the eyes of patients and families but also through our own eyes when, as sometimes happens, we have become sufficiently distracted by work and responsibility to no longer fully appreciate both what we do and our unusual relationship with others. Ours is a profession that fosters loneliness, and an early article by Coles describes this risk of being a physician: "In search for closeness he craves knowledge; and in search of knowledge he finds psychology. Psychology becomes a substitute for love, for intimacy"^{3:309} David Loxtercamp, a family doctor in Maine, closes the anthology with a piece containing these lines: "For the battle-worn physician, our Waterloo waits in the stack of messages at the end of the day We recognize it in unwritten cards of condolence, our cowardice to confront addiction or abuse, the contempt we feel for self-destructive patients, and the encounters we crimp with a blood test or prescription when another five minutes with the doctor would do. How we respond to patients—in mood and action—reflects the core of the physician we are striving to become."^{3:319} Like Coles' earlier book, *The Call of Stories*,⁴ this one reminds us, amid all the other things we seek to get, to get understanding. ♦

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Vincent J Felitti, MD, has been with the Southern California Permanente Medical Group since its opening in San Diego in the late 1960s.

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Section A.

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Article 1. *Obesity Research: Winning the Battle, Losing the War*

Which two of the following have been associated with successful long-term maintenance of weight loss?

- Sibutramine
- Physician counseling
- Physical activity
- Orlistat
- Obesity case management

Which one of the following interventions is LEAST likely to be recommended by a doctor to an obese patient who is in need of the service?

- Mammography
- Smoking cessation
- Low-fat diet
- Physical activity
- Pap smear

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Article 2. *KP Regional Weight Management Programs*

What are the key components in the Care Management Institute's Weight Management Initiative?

- Developing guidelines, clinical tools, alerts, and patient education
- Developing a closer relationship with community health clinics by sharing physician and patient tools to support a consistent approach
- Conducting research, developing guidelines and community linkages
- Developing an approach to include clinical management, legislative and public policy, community linkages, successful practice dissemination and research

What is the standard method of determining a patient's risk for overweight or obesity?

- Inspection by the clinician to determine if a patient looks overweight or obese
- Obtaining a patient's weight on a scale
- Determining a patient's BMI using a BMI wheel or chart
- Obtaining a patient's self-reported weight between visits to assess weight trends

(Continued on next page)

**Return
completed
form by
September 30,
2003.**

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(Continued from previous page)

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Article 3. Clinical Overview: How Do I Treat the Adults I've Been Seeing with New Type 2 Diabetes?

Which of the following drugs has been proven to lower cardiovascular risk in diabetes?

- a. Glyburide
- b. Glargine Insulin
- c. Glucophage
- d. Pioglitazone

The goal of blood pressure therapy in diabetics is:

- a. 135/75
- b. 130/80
- c. 145/85
- d. 120/80

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Article 4. Evidence-Based Clinical Vignettes from the Care Management Institute: A Diabetic Patient with Renal Disease and Heart Failure

For patients with diabetes, cardiomyopathy, and renal insufficiency like the hypothetical patient presented in this issue, which of the following are TRUE?

- a. Target blood pressure is 140/80 mm Hg or less
- b. Target LDL cholesterol is <100 mg/dL
- c. Angiotensin receptor blockers (ARBs) should be considered first line therapy
- d. Tight glucose control will help delay microvascular complications of diabetes

Self-management and patient education strategies for this patient include all of the following EXCEPT:

- a. Referral to a diabetes care manager/nurse
- b. Referral to a heart failure class
- c. Home monitoring of blood glucose and insulin self-adjustment
- d. Monitoring blood pressure using a blood pressure machine at the grocery store every two weeks
- e. Online *KP Health Encyclopedia*

Section B.

Referring to the CME articles and to the stated objectives, please check the box next to each statement as appropriate.

| | Article 1 | | | | | Article 2 | | | | | Article 3 | | | | | Article 4 | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Strongly Agree | | Strongly Disagree | | | Strongly Agree | | Strongly Disagree | | | Strongly Agree | | Strongly Disagree | | | Strongly Agree | | Strongly Disagree | | |
| | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| The article covered the stated objectives. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I learned something new that was important. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I plan to use this information as appropriate. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I plan to seek more information on this topic. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I understood what the author was trying to say. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Section C.

What change(s), if any, do you plan to make in your practice as a result of reading these articles?

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