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Commentary: CDC's 50th Anniversary—A Chronic Disease Perspective

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Over the past decade, many of the factors that are so vital in chronic disease prevention and health promotion—a smoke-free lifestyle, good nutrition, physical activity, and early disease detection—have enjoyed a high visibility. That is related in large measure to the emergence over the past 50 years of a clear link between those factors and chronic illness.

When CDC was founded in 1946, heart disease, cancer, and stroke were already the leading causes of death in the United States.[1,2] But very little was known about how to prevent them, and CDC—then the Communicable Disease Center—had a mission that focused only on infectious disease prevention and control. In the five ensuing decades, not only has the burden of chronic disease increased dramatically, but more importantly, we have learned much more about what needs to be done to prevent those conditions. Furthermore, the cost of chronic illness has increased to more than 60 percent of the $1 trillion spent on medical care in the United States. Both public health officials and CDC have become more active in addressing the

See COMMENTARY, page 2

Chronic Disease Prevention Withstands the Test of Time

[Managing editor's note: This article is based on the keynote speech given by Jeffrey P. Koplan, MD, MPH, at the Tenth National Conference on Chronic Disease Prevention and Control.]

Many of the recommendations that emerged from the First National Conference on Chronic Disease Prevention and Control have withstood the test of time, noted Jeffrey P. Koplan, MD, MPH, President of the Prudential Center for Health Care Research.

The 1986 conference was organized as a series of working groups, recalled Dr. Koplan, former Director of CDC's National Center for Chronic Disease Prevention and Health Promotion. One working group advocated multifaceted interventions, and others cited the need for a national agenda on chronic disease control and model protocols.

The marketing and communications group cited the need for a marketing plan, in-house market research, and local-level market research. "These are still important issues . . . but we have a long way to go in marketing public health," he said.

Too many professionals in chronic disease prevention think, "We do such good things, we don't have to trumpet our own horns, but we need to be doing more of that in spreading the message," Dr. Koplan urged.

See TEST OF TIME, page 5

Inside This Issue

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • Public Health Service

The Nation's Prevention Agency
CDC 50 1946 1996
Centers for Disease Control and Prevention

Commentary

▸ *Continued from page 1*

leading preventable causes of death and disability of our times.

It Began in the 1960s

CDC's foray into chronic diseases began in the 1960s, when the agency started to study clusters of leukemia cases. About that same time, the first Surgeon General's report on the *Health Consequences of Smoking* was published, linking smoking to lung cancer. Later that decade, CDC created the Family Planning Evaluation Activity to provide technical assistance to newly emerging family planning clinics and to determine the safety and efficacy of contraceptive methods.

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The agency launched its first major initiative related to nutrition in 1968, following the Nigerian-Biafran war. For decades, CDC had applied the principles of epidemiology to infectious diseases, and now the agency was using those same principles to measure the prevalence of malnutrition as part of famine relief efforts in Nigeria. The strategy that CDC employed for collecting nutrition surveillance data in Nigeria—using simple rapid assessment techniques—has become known for its innovation in the annals of nutrition.[3] Three years later, CDC established a nutrition program.

The 1970s Brought a New Name

In 1970, CDC was renamed the Center for Disease Control to reflect its broader mission in preventive health. The National Clearinghouse on Smoking and Health (the precursor to the Office on Smoking and Health) was transferred to CDC in 1972, further expanding our activities in chronic disease prevention and health education (the Clearinghouse eventually would be moved out of CDC and back again). In 1974, CDC established the Bureau of Health Education after a Presidential Commission recommended a national focus for those activities. That bureau pioneered a diversity of activities such as the Berkeley Project to develop health curricula for grade-school children.

In the 1970s, data on the value of hypertension control to prevent stroke and heart disease became clear and when data on the link of cholesterol to cardiovascular disease was established.

In 1975, CDC released findings of a national nutrition survey that focused on undernutrition and documented some health problems linked to obesity. At CDC, the Chronic Disease Division was established in 1977 to target cancer, birth defects, and environmental health issues.

Diabetes became a prevention priority in 1977, with the establishment of the Diabetes Control Activity. That same year, CDC initiated a nutritional status surveillance system in the United States.

The Red Book Committee Formed

Under the leadership of Director William H. Foege, MD, MPH, CDC's mission broadened considerably in the late 1970s and early 1980s. Dr. Foege asked people outside the agency for advice that would help guide CDC's future, and in 1977, he formed the CDC Programs and Policies Advisory Committee (later known as the Red Book Committee). Those 16 lay people and health professionals were charged with identifying the most important health problems in the United States and deciding how CDC should work to resolve those problems. Among the many items on the final list were early cancer detection, cardiovascular diseases, infant mortality, smoking, and unwanted pregnancy.[3]

Publication of *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* in 1979

marked the beginning of a new era, or as HEW Secretary Joseph Califano put it, "a second public health revolution in the history of the United States." The first was the battle against infectious diseases in the late nineteenth and early twentieth centuries.[3] That, with an accompanying landmark report, established 15 health goals to be reached by 1990.

The 1980s: A New Organization

In 1980, numerous events bolstered CDC's role in chronic disease prevention and health promotion. As part of a reorganization to bring its structure in line with the overall plan for disease prevention, CDC was renamed the Centers for Disease Control, and the Center for Health Promotion and Education was established. Also *Promoting Health/ Preventing Disease: Objectives for the Nation* was published.

Three years later, CDC identified physical activity and exercise as a priority, both because of its link with heart disease prevention, and because it was an important, but understudied, area to build the field of behavioral epidemiology. Other milestones came in 1984, when the Behavioral Risk Factor Surveillance System and the Planned Approach to Community Health (PATCH) program were begun. Both have gone on to become fundamental foundations of state and local public health work in chronic disease prevention and health promotion.

In the mid to late 1980s, CDC Director James O. Mason, MD, DrPH, supported expanding CDC's chronic disease activities to include the first community cardiovascular disease prevention project, the initial breast and cervical cancer screening projects, and the First National Chronic Disease Prevention and Control Conference. That also was the first time CDC assigned epidemiologists to the states for chronic disease work. The first three Prevention Centers, which now number 13, were funded in 1986 as a means to bridge the gaps between scientific research and public health practice for high-priority public health issues.

In 1986, the Office on Smoking and Health returned to CDC. That same year a study on how CDC should be organized to provide leadership to the public health community in chronic disease prevention was expanded to also include health promotion. CDC's school health education to prevent the spread of AIDS was launched in 1987, building on CDC's small program in comprehensive school health. The next year, the Center for Chronic Disease Prevention and Health Promotion was established (National was added to the title in 1991). In 1988, CDC became the lead federal agency for translating and coordinating diabetes research into clinical and public health practice, which is the focus of NCCDPHP's Division of Diabetes Translation.

Early 1990s Bring More Growth

Since the NCCDPHP's formation in 1988, cancer prevention and control programs have grown considerably. There now is nationwide support for early detection of breast and cervical cancer and we have begun establishing nationwide cancer registries and a skin cancer prevention program. The tobacco control program has also been expanded through an increasing focus on state activities and emphasis on preventing the initiation of tobacco use by youths.

Community approaches to health promotion, which encompass myriad activities and programs, have continued to expand through various avenues, including PATCH and the Secretary's Community Health Promotion Awards Program.

NCCDPHP has also continued to broaden CDC's adolescent health activities into areas other than HIV; those activities have been bolstered by the establishment of the Youth Risk Behavior Surveys.

Most recently, we have combined CDC's physical activity and nutrition

programs to better address how those synergistic risk factors affect health. We also have placed a stronger emphasis on documenting the costs and cost effectiveness of prevention activities in the field of chronic disease and health promotion. Moreover, we have started reaching out to managed care as a partner with public health and have begun a new program to help communities address the problem of teenage pregnancy.

As CDC enters its second half century along with the first of the baby boomers, it is even more compelling to strengthen our partnerships so that we can address the leading causes of mortality and prevent premature deaths. Achieving what the science tells us is possible has never been more important. Please join us in celebrating CDC's 50th anniversary this year as we look ahead to another 50 years of working together to meet our goal of enabling all people in an increasingly diverse society to lead long, healthy, satisfying lives.

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Milestones Mark Past Decade

Over the past 10 years, chronic disease prevention and health promotion activities have grown enormously in scope at the national, state, and local levels. Since the first National Conference on Chronic Disease Prevention and Control was held in 1986, here are some of the more memorable milestones at CDC:

- 1987—CDC, for the first time ever, provides financial and technical support to state departments of education, support that addressed HIV prevention. Establishement of the Pregnancy Risk Assessment Monitoring System.
- 1988—Creation of the Center for Chronic Disease Prevention and Health Promotion and publication of a Surgeon General's report presenting conclusive evidence that nicotine is highly addictive. Establishment of the Division of Diabetes Translation.
- 1990—Enactment of the Breast and Cervical Cancer Mortality Prevention Act. Administration of the first national, state, and local Youth Risk Behavior Survey.
- 1991—Development of a national strategic plan for the early detection and control of breast and cervical cancers among all American women.
- 1993—Preventive Health and Health Services Block Grant reauthorized to support activities for achieving the *Healthy People 2000* objectives for the nation. National Program of Cancer Registries is authorized by Congress.
- 1994—Collaborated with the American College of Sports Medicine to recommend 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week. Conducted the School Health Policies and Programs Study.
- 1995—NCCDPHP worked extensively with the Food and Drug Administration (FDA) and other partners on the President's initiative to reduce tobacco use by youths.
- 1996—Publication of *Physical Activity and Health: A Report of the Surgeon General.*

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Test of Time

▸ *Continued from page 1*

What Are Disease Trends?

Over the past 10 years, "we've added a year to our life span," Dr. Koplan said, and death rates are down. For example, the rate of death from ischemic heart disease was 126.1 per 100,000 in 1985, compared with 95.7 per 100,000 in 1992. Rates of ischemic heart disease death did not decline equally for men and women or for all racial and ethnic groups, he said, "but still, there was a general decline for all groups except black women." Similar declines were observed in rates of stroke death.

"Why? Was it because our public health efforts were successful? Street-side CPR? Coronary bypass surgeries?" Dr. Koplan asked. "Talk about opportunity!" he said, while urging health professionals to begin "teasing out that public health role" to market the benefits of chronic disease prevention programs.

Trends in cancer deaths have varied by site over the past decade, he noted. Between 1985 and 1992, prostate cancer deaths rose, but incidence also increased, primarily because more people are being screened for the disease. Breast cancer death rates have remained stable; lung cancer death rates have increased; and colorectal cancer deaths have declined. Rates of death from melanoma will increase in the United States, he predicted, just as they have in countries such as Australia.

Risk Factor Trends Analyzed

The percentage of Americans who smoke has declined from 30.1 percent in 1985 to 25.0 percent in 1993—evidence that "tobacco use prevention and control has paid off," Dr. Koplan said. He warned, however, that "our aggressiveness cannot let up" in this area and that smoking rates among young women continue to be above the national average.

Also promising are findings that a greater proportion of adults with high blood pressure are taking antihypertensive medication, he said.

"Some risk factors pose particularly thorny challenges," Dr. Koplan suggested. For example, a recent *New England Journal of Medicine* article cited a study in which severe hypertension was reduced through physical activity. "While we've seen some decline in sedentary behavior and a slight increase in physical activity, . . . sales of TV remotes continue to climb," he said. School health education and environmental changes are two promising avenues for promoting physical activity.

In the areas of nutrition and obesity, "while we're developing some knowledge shift . . . attitudes and behaviors have barely budged." Dr. Koplan said. People are confused by the mixed messages they receive from public health professionals about nutrition, he explained.

"We advocate more fruits and vegetables. Less fats. No—less of some fats. No, we mean no fats at all. You should eat olive oil. Eat like an Italian or Greek, but no lasagna or feta cheese. You should eat margarine, not butter. No, I take that back. . . ," Dr. Koplan quipped.

"It's really no joke for us. Is the general public confused? If they aren't confused, they haven't been listening," he said.

Despite these mixed messages, people have curtailed their consumption of red meat, eggs, and whole milk, Dr. Koplan reported. And they are consuming more chicken, skim milk, and fresh fruits.

"While this is in the right direction . . . there has been a marked increase in consumption of foods with the highest fat content and very high-fat desserts," he reported. In fact, more men and women are overweight at all ages, and the problem increases with age.

Dr. Koplan expressed optimism that health communications efforts, such as CDC's Nutrition and Physical Activity Communications Team (NUPACT), will make strides in developing and targeting public health messages that promote healthy eating and physical activity. "This is not a cultural issue . . . . It's a health issue. It's a

"While we've seen some decline in sedentary behavior and a slight increase in physical activity, . . . sales of TV remotes continue to climb."

Jeffrey P. Koplan, MD, MPH, President of the Prudential Center for Health Care Research, addresses attendees during the opening session of the Tenth Nationl Conference on Chronic Disease Prevention and Contol.

health care cost issue and a health burden issue—an issue we all want to address."

Economic Trends Troubling

Troublesome economic trends over the past decade have had tremendous implications for chronic disease prevention, he stated. Although poverty has increased and the median household income has declined—from $33,600 in 1985 to $31,200 in 1993—household health care costs have risen significantly. Those changes have affected the disability burden and the nature of interventions in chronic disease prevention and control, he observed.

Over the next five decades, the United States will experience phenomenal changes in its demographic makeup, Dr. Koplan predicted. The U.S. population is expected to soar from 261 million people in 1995 to more than 390 million people in 2050. A greater proportion of those people will be older, Hispanic, and Asian, and much of the population growth will occur in the South and West. Much of that growth will occur through immigration.

"There are opportunities for people who are very fragile in our society to be overburdened further . . . . There are also opportunities for these people to get better. Don't cling to old paradigms of what agencies used to be."

Managed care offers many opportunities for chronic disease professionals to devise new ways to improve the quality of health care, he noted, even though some public health professionals perceive managed care to be a threat to high-quality care.

The ability to measure quality and to move toward measurable quality is good, he stated, admitting that managed care is not a panacea. "It does not address an underinsured population or the [undertreatment] of people."

Managed care and public health professionals must work together to resolve these issues "or we'll both suffer," he advised. "There are opportunities for people who are very fragile in our society to be overburdened further . . . . There are also opportunities for these people to get better. Don't cling to old paradigms of what agencies used to be."

For additional information, contact Jeffrey P. Koplan, MD, MPH, President, Prudential Center for Health Care Research, 2859 West Paces Ferry Road, Atlanta, GA 30341; (404) 801-7831.

A Look Back: Tenth National Chronic Disease Conference

[Managing editor's note: Last December, public health professionals from around the world attended the Tenth National Conference on Chronic Disease Prevention and Control. These highlights from selected sessions have been categorized by topics rather than how they occurred at the conference. Not all sessions have been included because of space limitations.]

Surveillance

Patient Reports Provide Measure of Preventive Care

At the Colorado Department of Public Health and Environment, investigators evaluated more than 600 patient self-reports, used to compile data for the state's Behavioral Risk Factor Surveillance System (BRFSS), to check their accuracy for evaluating the performance of HMOs. Reports of enrollees from Kaiser Permanente who said they had their last routine checkup at Kaiser were compared with corresponding medical records in the patient files. Initial results follow:

- 75 percent reported having had a cholesterol test at Kaiser within the past two years, compared with 63 percent according to medical records.
- 98 percent reported having had their blood pressure checked within the past two years, compared with 94 percent according to medical records.
- 69 percent of those more than 40 years old reported having a digital rectal examination in the past two years, compared with 54 percent according to medical records.
- 89 percent said they had visited a Kaiser Permanente facility for a routine checkup within the past two years, compared with 54 percent according to medical records.

Totals from patient self-reports were statistically consistent with those from medical records for all procedures but "routine checkups," said Carol J. Garrett, PhD, Section Chief, Health Statistics Section, Colorado Department of Public Health and Environment. "Our suspicion is that some members may interpret standard care as a routine examination," Dr. Garrett said, and "if so, we may be measuring contact with provider rather than actual delivery of routine examinations."

"Controversy still surrounds the contention that the medical record is the gold standard for determining medical care history," she added. "Until that issue is resolved, we can't conclude that the BRFSS self-report or telephone survey is necessarily less accurate than the medical record."

Self-Reports Measure Up to HEDIS

A second study of the same Kaiser Permanente patients showed that the BRFSS was as reliable as the Health Plan Employer Data and Information Set (HEDIS), which large companies use to compare and assess the performance of various health care plans.

Dr. Garrett noted that the HEDIS does not represent all health plan members because it includes only employee populations and excludes members over the age of 65 years. Among the key results:

- 81 percent of women between the ages of 21 and 64 years reported having had a Pap test at Kaiser in the past two years, compared with 77 percent according to the HEDIS.
- 87 percent of women 40–64 years of age reported having a mammogram in the past two years, compared with 88 percent according to the HEDIS.
- 68 percent of patients 40–64 years of age said they received a cholesterol check at Kaiser within the past two years, compared with 81 percent reported by the HEDIS.

"Overall, the BRFSS in a managed care organization is a highly valid and extremely useful way to determine the health status of members, and a good way to collect other information, such as diet and exercise habits," she said. "It is also substantially less costly than reviewing medical records or having to work through analysis of internal databases."

Physicians Less Reliable Than Patients

Family physicians' self-reports of the rates at which they provide cancer screening tests overestimate their own rates of providing service more than other data-gathering methods, according to Daniel E. Montaño, PhD, Senior Research Scientist, and his colleagues at the Battelle Centers for Public Health Research and Evaluation, who evaluated self-reports from 60 physicians and surveys and medical chart audits of 3,281 patients.

"We wanted to study all three measures —physician self-reports, patient surveys, and chart audits—because we're not clear which is the most accurate. Our analysis suggests a particularly low reliability of physician self-reports for estimating rates of providing cancer screening tests," said Dr. Montaño. "Such measurements are better obtained with chart audits or patient surveys." Each method of data collection has advantages and disadvantages.

- Patient surveys avoid physician inaccuracy and recall bias and adjust for patients who obtain tests from other providers. But their usefulness depends on patients' understanding and recall of services.
- Chart audits can provide the only uninterrupted record of patient services but do not adjust for services obtained from other providers and depend on clear record keeping for accuracy.
- Physician self-reports are the least expensive and the easiest to analyze method but can be unreliable because of faulty physician perceptions and limited availability.

Reported rates of service were similar across the three methods for mammography and for digital rectal examinations of male patients. Physicians overestimated their performance of clinical breast examinations, Pap tests, digital rectal examinations of women, and fecal occult blood tests. They underestimated their performance of sigmoidoscopy and chest X-rays, particularly for nonsmokers.

For more information contact, Carol J. Garrett, PhD, Section Chief, Health Statistics Section, Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive, South, Mail Code HSVRD-HS-A5, Denver, CO 80222-1530; (303) 692-2160; and Daniel E. Montaño, PhD, Senior Research Scientist, Battelle Centers for Public Health Research and Evaluation, 4000 Northeast 41st Street, Seattle, WA 98105-5428; (206) 528-3105.

Better Data—First Step Toward Better Arthritis Care

Arthritis, the nation's leading cause of disability, will become more prevalent, affecting as many as 60 million people by 2020, noted Charles G. Helmick, III, MD, Medical Epidemiologist, Health Care and Aging Studies Branch, Division of Adult and Community Health, NCCDPHP.

To help states collect data that can be used to develop better arthritis interventions, CDC and state epidemiologists have developed a random-sample telephone survey based on questionnaires used in the Behavioral Risk Factor Surveillance System. The six questions cover topics such as the prevalence of chronic joint symptoms and the effects of these symptoms on activity, diagnosis, and current treatment. The arthritis module is being used in Missouri and will be introduced in Arizona in 1997.

States will be able to use the survey findings to devise better interventions to reduce arthritis pain, prevent disability, reduce costs, and improve quality of life. Dr. Helmick suggested that state health departments form partnerships to encourage the use of the arthritis survey and to cope with this growing cause of disability.

For more information, contact Charles G. Helmick, III, MD, Health Care and Aging Studies Branch, Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–51, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5456.

Survey Determines Risk Factors of African-Americans in Michigan

Michigan has conducted a behavioral risk factor survey on a fairly regular basis since 1987, but 1995 was the first year in which the state conducted a special survey of African-Americans, said Ann P. Rafferty, PhD, Public Health Consultant with the Michigan Department of Community Health.

For the two-month telephone survey, administered in conjunction with Michigan's BRFSS questionnaire, state health officials used census data to develop a list of telephone exchanges, stratified by density of the African-American population. Randomly selected respondents answered questions on topics such as access to health care services, hypertension, weight control, physical activity, mammography, contraception, injury, violence, and the use of tobacco, alcohol, and other drugs.

The survey results will help state health officials obtain more precise estimates of behavioral risks among African-Americans in Michigan and to examine risk prevalences among subgroups within the African-American population, Dr. Rafferty said.

For more information, contact Ann P. Rafferty, PhD, Public Health Consultant, Michigan Department of Community Health, P.O. Box 30195, Lansing, MI 48909; (517) 335-9524.

Using BRFSS Data for Evaluation: Opportunities and Risks

Because the BRFSS is widely used, it has "a unique advantage as a surveillance system," noted Christopher Maylahn, MPH, Program Research Specialist, Division of Disease Prevention and Adult Health, New York State Department of Health in Albany. "Use the BRFSS to the extent that you can for supplementary studies," he urged, but take into account both the opportunities and risks involved:

Opportunities

- Because many of the same questions are asked each year, and data are collected continuously in monthly samples, trends can be compared with the timing of the intervention and differences between communities.
- Many BRFSS questions have been taken from other surveys, such as the National Health Interview Survey, enabling comparisons between samples.
- Small area estimates can be produced by using synthetic methods or multiple years of data.
- States may include special interest questions on their BRFSS.
- Point-in-time surveys incorporating questions from the BRFSS can be used to better evaluate program interventions, and BRFSS samples can be used for comparison.
- Respondents may be recruited into additional studies, such as cohort or case-control investigations.

Risks

- Estimates for subgroups or small areas are limited by sample size.
- The validity of some self-reported measures is questionable or unknown.
- The ability to detect a change is limited by sample size.
- Lack of telephones or interrupted service may bias survey estimates.
- Because the BRFSS sample represents the state as a whole and is limited to adults with telephones, results cannot be generalized.

For additional information, contact Christopher Maylahn, MPH, Program Reserach Specialist, Division of Disease Prevention and Adult Health, New York State Department of Health, 557 Tower Building, Empire State Plaza, Albany, NY 12237-0620; (518) 474-2460.

How Do Healthy, Unhealthy People with Diabetes Differ?

The Georgia Department of Human Resources is using data from the state's Behavioral Risk Factor Surveillance System questionnaire to determine the factors that differentiate healthy from unhealthy people with diabetes.

"We find that unhealthy persons or persons at increased risk of complications of diabetes are more likely to have low incomes, no health insurance, and be unable to access medical care because of costs," reported Patricia M. Fox, MPH, Epidemiologist with the Cardiovascular Health Program, Georgia Department of Human Resources, in Atlanta. "Characteristics that we have associated with poor health—low education, increasing age, or gender—are not as significant."

Many persons with diabetes have had problems with reimbursement for medical supplies and medications because of preexisting conditions, she said. "The American Diabetes Association and the American Association of Diabetes Educators have made it top priority to remove the preexisting conditions clause so that persons with diabetes are impeded by lack of access to health care," Ms. Fox said. In addition, the state legislature is considering a law that would allow for reimbursement for supplies necessary to control diabetes.

For additional information, contact Patricia M. Fox, MPH, Epidemiologist, Cardiovascular Health Program, Chronic Disease Branch, Division of Public Health, Georgia Department of Human Resources, 2 Peachtree Street, NW, Room 6.500, Atlanta, GA 30303; (404) 657-6637.

About 30 percent of all respondents either did not know or thought the statement was true "that women, too, can get prostate cancer."

Percentage of Overweight Americans Increased Since 1987

The prevalence of overweight U.S. adults increased approximately 5 percent between 1987 and 1993, according to self-reported data from the BRFSS. The greatest increase occurred in the latter part of the observation period, and all subgroups of people became heavier, according to Deborah A. Galuska, PhD, MPH, EIS Fellow, Division of Nutrition and Physical Activity, NCCDPHP.

She said that to develop effective interventions, the reasons for that increase must be identified. "Historically, much of our effort has focused on weight reduction in those already overweight," Dr. Galuska noted, but that strategy has seldom been effective, and few people have been able to maintain their weight loss.

"Therefore, we must learn how to prevent weight gain in those [people who are] not overweight," she said. "Continued promotion of healthy diet and moderate physical activity will continue to be the cornerstones of any prevention strategy."

For more information, contact Deborah A. Galuska, MPH, PhD, EIS Fellow, Division of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–26, 4770 Buford Highway, NE, Atlanta, GA 30341-3714; (770) 488-4058.

Survey Evaluates Knowledge of Prostate and Colorectal Cancer

Even though prostate cancer is the most common type of cancer in Michigan and is the second leading cause of cancer death, very few Michiganders know much about prostate cancer or tests to screen for the disease, according to the results of a recent study of persons aged 40 years and older.

About 30 percent of all respondents either did not know or thought the statement was true "that women, too, can get prostate cancer." Most men could not identify any risk factors associated with prostate cancer, and most respondents were not sure if prostate cancer had any symptoms, reported Janet Zimmerman, PhD, Senior Research Scientist with the Michigan Public Health Institute, which is helping the Michigan Department of Public Health to conduct this research.

The survey also revealed that Michigan adults knew little about colorectal cancer, which is the fourth most common cancer and the fourth leading cause of cancer death in the state.

For more information, contact Janet Zimmerman, PhD, Senior Research Scientist, Michigan Public Health Institute, 3055 Plymouth Road, Suite 204, Ann Arbor, MI 48105; (313) 669-8830.

Managed Care Database Tapped to Study Risk Factors

Family practitioner Patrick J. O'Connor, MD, MPH, Senior Clinical Research Investigator with the Group Health Foundation in Minneapolis, wanted to find out whether a managed care database could be developed to link patients' biological and behavioral risk factors with their use of medical care. He worked with colleagues to assess the health status and risk factors, both biological and behavioral, of about 4,000 HMO members.

When biological factors were considered, 65 percent of the HMO members were classified as low risk, 19 percent as average risk, and 16 percent as high risk. But when their degree of behavioral risk was considered, none of the members were classified as low risk, 65 percent as average risk, and 35 percent as high risk. High biological risk was strongly related to inpatient and outpatient visits, whereas behavioral risk factors did not seem to be associated with visits. Any connection between behavioral risk factors such as smoking and an individual's use of health care facilities, he noted, was not apparent because the survey assessed HMO members' use of services at one point in time rather than for several years.

Dr. O'Connor said that for patients identified as having one or more biological risk factors, an organization could recommend an aggressive treatment and control program and for patients identified as having behavioral risk factors, an HMO could recommend a tailored behavior modification program.

He added that HMOs can supply the databases and information systems valuable to population-based interventions, whereas health departments can supply expertise as well as the neutrality needed to get competing managed care companies to cooperate.

For more information, contact Patrick J. O'Connor, MD, MPH, Senior Clinical Research Investigator, Group Health Foundation, P.O. Box 1309, Minneapolis, MN 55440-1309; (612) 883-5034.

Health Education and Promotion

Prevention Cost-Effective But Underused

Cost-effective analyses of prevention efforts are important for building a case for public health, advised Marthe R. Gold, MD, MPH, Senior Advisor, Office of Disease Prevention and Health Promotion, Office of Public Health and Science. Of the nearly trillion dollars spent annually on health in this country, Dr. Gold noted, only about 1 percent is spent on traditional public health and perhaps another 2 percent on clinical prevention.

"Of the 30 years that have been gained in life expectancy since the turn of the century, only about five years are directly attributable to medical care intervention that we pay so dearly for." Most of that increase might better be explained by changes in social conditions and traditional public health interventions that focus on environmental and behavioral issues, she said.

Most improvements in reducing heart disease came from public health, not medical, interventions that focus on reducing cholesterol and fat intake, quitting smoking, and increasing exercise, she noted. "As health care dollars become tighter, the medical care system may not be the most effective way to spend them." Population-based approaches can often be substituted for medical approaches."

"We must think about cost-effectiveness as we plan strategies to champion our causes and attract more funds, especially as more partnerships develop with managed care organizations," she said. She recommends documenting the effectiveness of population-based interventions; developing consistent approaches for assessing economic consequences of illness, injury, and death; and tracking expenditures instead of lumping together how funds were spent.

For more information, contact Marthe R. Gold, MD, MPH, Senior Advisor, Office of Disease Prevention and Health Promotion, Office of Public Health and Science, Room 738G, 200 Independence Avenue, SW, Washington, DC 20201; (202) 401-6295.

"Of the 30 years that have been gained in life expectancy since the turn of the century, only about five years are directly attributable to medical care intervention that we pay so dearly for."

Putting Prevention in the System

Managed care offers public health professionals new opportunities for incorporating prevention into the health care system, particularly in the clinical setting, noted Linda J. Dusenbury, MS, RN, Director, Cardiovascular Health Program, Colorado Department of Public Health and Environment. Working with the medical profession and private industry, the department is educating primary care providers on the prevention and control of cardiovascular disease (CVD).

The first step involved developing a screening guide that could serve as one-stop shopping, for busy primary care providers. The Colorado Cardiovascular Disease Screening Guide, developed with CDC funding, contains contemporary recommendations for assessing selected CVD risk factors. It addresses the interrelationship of risk factors in treating CVD, particularly with respect to high blood pressure, dyslipidemia, diabetes mellitus, cigarette use, physical inactivity, and obesity.

After developing the guide, program staff formed the Cardiovascular Disease Prevention Coalition—a multidisciplinary group of people from the public and private sectors collaborating to reduce the incidence of CVD in the state, explained Ms. Dusenbury. The coalition worked with a pharmaceutical company and four physicians to develop training resources and promote the program.

For more information, contact Linda J. Dusenbury, MS, RN, Director, Cardiovascular Health Program, Colorado Department of Public Health and Environment, Mail Code PPD-CDC-A5, 4300 Cherry Creek Drive, South, Denver, CO 80222-1530; (303) 692-2559.

Finding Qualitative Measurements: One Size Doesn't Fit All

Community health professionals need to share their strategies for success to help peers understand why some communities can quickly mobilize resources to combat an imminent health crisis, whereas others cannot. "If we can learn how successful communities work, we can build-in ways to increase capacity along with, or before, devising interventions," said Kenneth R. McLeroy, PhD, Professor and Chair, Health Promotion Sciences, College of Public Health, Health Sciences Center, University of Oklahoma.

Practitioners and officials who plan community programs often assume those programs address the problems of capacity, but that is not so, he asserts. "As we develop more and new coalitions, we actually weaken the community's capacity by fragmenting resources and services." He suggested several steps to prevent this problem:

- Form overlapping and interconnected networks through which social resources can be transmitted.
- Strengthen the capacity of mediating structures such as church and service organizations.
- Create interorganizational linkages.
- Change social policies and unnecessary or unreasonable regulations.
- Put health care resources into communities.
- Gain community leadership to mobilize and identify issues.

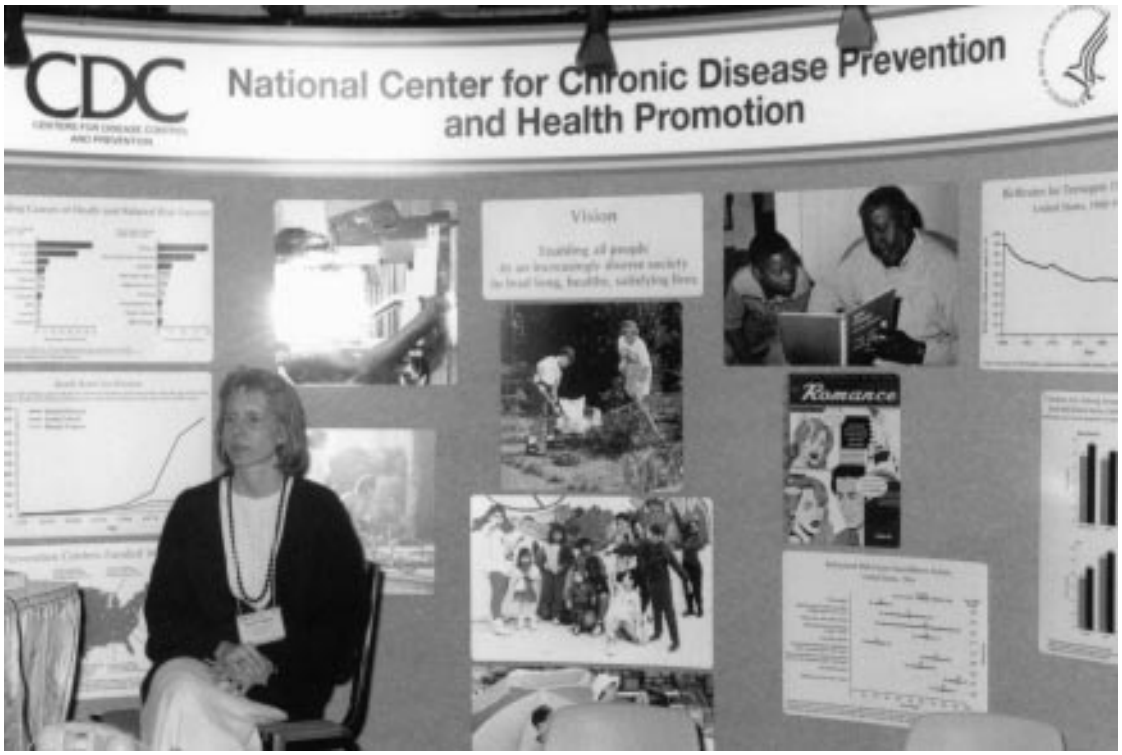
For additional information, contact Kenneth R. McLeroy, PhD, Professor and Chair, Health Promotion Sciences, College of Public Health, University of Oklahoma, 801 Northeast 13th Street, P.O. Box 26901, Oklahoma City, OK 73190; (405) 271-2017.

"If we can learn how successful communities work, we can build-in ways to increase capacity along with, or before, devising interventions."

Shifting from Treatment to Prevention

In 1993, Washington's public health system began moving toward population-based programs as a result of a mandate from the state legislature to produce a public health improvement plan, said Bobbie Berkowitz, PhD, RN, CNAA, FAAN, former Deputy Secretary of the Washington State Department of Health in Olympia.

"We took seriously the idea of providing population-based services, but we had to figure out what it meant for us," she



NCCDPHP's own exhibit highlighted risk factors, trends, and prevention efforts.

noted. The health department sought broad community involvement, and the result was a plan with these components:

- A population-based approach to providing services.
- Explicit standards and outcomes for improved health.
- Stable financing of public health.
- Accountability for the capacity and outcome standards in the plan.
- Community-based solutions.
- Public policy based on data.
- Effective health regulations.
- Economic viability of the community as a result of prevention efforts.
- Performance measures.
- Systems for improving data and quality.

The public health improvement plan has become the framework guiding the state health department and local public health jurisdictions, Dr. Berkowitz said. The plan is updated every two years, and the department is now in its second cycle.

To put the plan into action, the health department staff convinced state legislators to provide flexible funding for a variety of purposes rather than strictly to prevent or treat certain conditions, she said. Funding has been used for improving information systems to link local and state health departments, establishing community-based public health partnerships, and controlling communicable diseases.

Although several states are developing public health plans based on population-based services and prevention, Washington is the first to document its plan, she noted. She recommended that public health officials who are developing population-based plans avoid working in isolation and "work with your partners to get a good picture of what will work in your state." Partners can include local public health jurisdictions, businesses, the educational system, health care organizations, community-based health and social service organizations, community leaders, and elected officials.

For more information, contact Bobbie Berkowitz, PhD, RN, CNAA, FAAN, UW/RWJF Turning Point Program, 6 Nickerson Street, Suite 300, Seattle, WA 98109; (206) 616-8410.

Population-Based Care Requires Action, Not Rhetoric

Population-based care must move beyond rhetoric and into action, urged Edward H. Wagner, MD, MPH, Director of the Center for Health Studies and the W. A. (Sandy) MacColl Institute for Healthcare Information at the Group Health Cooperative of Puget Sound.

In terms of prevention, "We know what to do. We know what works," Dr. Wagner said, but getting that knowledge across to the population to improve their health is still an obstacle. Neither the public health system nor capitated medicine has done very well in preventing health problems, he noted.

Successful prevention programs require both assessment of the performance and outcomes of services and assurance that appropriate interventions are in place. Without the follow-up of assurance, assessment is of little value, Dr. Wagner said.

The goals of population-based care include improving health status, increasing consumers' satisfaction with services, and reducing costs, he said. The steps in providing population-based care include

- Identifying the target population.
- Defining and measuring relevant outcomes, usually health status.
- Searching the literature to identify what strategies should work with the target population.
- Identifying subpopulations and incorporating them into a surveillance system.
- Planning and ensuring delivery of effective services while eliminating ineffective ones.
- Assessing the performance and outcomes of services.

The most important steps are carrying out an intervention and strategy that can deliver effective services to the population and having measurable outcomes, he said. In the treatment of diabetes, for example, outcomes could include lower rates of amputation, blindness, and renal failure.

The group or individual encouraging change in practice patterns needs to provide physicians with a clear picture of how the practice will be modified to improve outcomes, Dr. Wagner noted. For example, Group Health offers training sessions and on-site consultations to teach physicians better ways of managing their practices and working with patients.

"We had to provide better, more accessible expertise to the primary care providers," Dr. Wagner said. At Group Health, all primary care practitioners follow a specific program of diabetes care that grew out of a collaboration between physicians, nurses, and medical assistants "in which they decided who would be responsible and accountable for which aspects of care."

Dr. Wagner suggested greater cooperation between managed care organizations and the public health community.

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Diverse Agendas Lead to Conflict

In community coalitions, the more diverse the membership, the more diverse the ideas, said Michelle Crozier Kegler, DrPH, Assistant Professor, College of Public Health in the Department of Health Promotion Sciences, University of Oklahoma Health Sciences Center, Oklahoma City. "This diversity of ideologies, commitment, and power can lead to conflicts," she advised.

Dr. Kegler warned of three major ethical issues that often arise in coalition-building: the coalition may limit citizen involvement; it may fail to address adequately the problem; or it may be a ploy by politicians to give the appearance of action, when nothing has really happened. About 70 percent of coalitions fail in the first year," she added, and a successful past collaboration is the best predictor of future success.

She suggested these strategies to avert conflicts and help members work together:

- Consider turf issues from the beginning; discourage competition; and share credit.
- Clarify the decision-making process; indicate which decisions require approval of the entire coalition; and communicate with all members.
- Select a central, broad goal; change this goal over time; establish short- and long-term goals; allow veto power, but limit joint action. Compromise on public positions; limit powerful groups to the one group/one vote rule; and grant powerful groups honorary or advisory status.
- "Involve everyone you are trying to reach from the inception, especially in the planning phase."

For more information, contact Michelle Crozier Kegler, DrPH, Assistant Professor, College of Public Health, Department of Health Promotion Sciences, CHB Room 369, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190; (405) 271-2017.

Interventions

Interventions Improve Dietary Habits

One simple dietary change—switching from whole or 2-percent milk to skim milk—can measurably lower saturated fat consumption. But will consumers make the switch? Yes, according to the Center for Science in the Public Interest (CSPI), which conducted a pilot program to alter consumers' milk-drinking habits in two small West Virginia cities. In Clarksburg, the CSPI conducted its "1 Percent Or Less" campaign, and Bridgeport served as a control town. Key activities included

- Using paid advertising instead of public service announcements.
- Holding taste tests conducted in front of supermarket dairy cases.
- Designing activities at the local high school to encourage peers to switch to low-fat milk.

Postcampaign evaluations revealed that weekly sales of whole and 2-percent milk in Clarksburg declined from 81 percent to 63 percent of total milk sales, while low-fat milk sales increased from 19 percent to 37 percent. In Bridgeport, where the CSPI took no action, milk-buying patterns did not change.

Because milk is a good source of vitamin D and calcium, the CSPI does not want people to stop drinking milk but to switch to low-fat milk and dairy products, according to Margo Wootan, ScD, a Senior Staff Scientist at the CSPI in Washington, D.C. CSPI plans to expand the "1 Percent Or Less" campaign nationally.

For additional information contact, Margo G. Wootan, ScD, Senior Staff Scientist, Center for Science in the Public Interest, 1875 Connecticut Avenue, NW, Suite 300, Washington, DC 20009-5728; (202) 332-9110.

Five-A-Day Power Play!

The "5-A-Day Power Play!" campaign, undertaken by the California Department of Health Services, sought to increase the daily intake of fruits and vegetables among fourth and fifth graders.

During the program, 2,700 children in 49 schools were divided into three test groups. The first received the Five-A-Day message only at school, the second was exposed to communitywide activities, and the third served as a control. Teachers were given resource kits for activities that could be incorporated into existing curricula, according to Susan B. Foerster, MPH, RD, Chief, Nutrition and Cancer Prevention Program of the California Department of Health Services. On Power Play Day, each school was responsible for promoting one fruit and one vegetable at a model marketplace. The children set up merchandising displays, provided product information, and offered easy-to-make recipes.

By the end of the intervention, the proportion of children in the "school only" group meeting the Five-A-Day criteria increased by 3 percent and in the "school plus community" group by 8 percent. Conversely, in the control group, the percentage of children who did not eat any fruits or vegetables increased.

For more information, contact Susan B. Foerster, MPH, RD, Chief, Nutrition and Cancer Prevention Program, California Department of Health Services, 601 North 7th Street, Sacramento, CA 94234-7320; (916) 322-1520.

Let Peas Begin with Us

The Utah Department of Health also intended to increase fruit and vegetable consumption with its "Let Peas Begin With Us" program, in which 6,500 third-graders toured local supermarkets.

In most cases, supermarkets supplied transportation to and from the schools and a "tour guide," usually the produce manager. The children saw how produce was delivered and readied for sale, sampled unusual foods, such as kiwis, mangos, and plantains, and learned about the vitamins and fiber found in fruits and vegetables. The grocery stores also distributed cookbooks, refrigerator magnets imprinted with the Five-A-Day message, and coupons for produce. Educational packets supplied by the Utah Department of Health helped teachers prepare follow-up assignments and activities.

Children's awareness of the Five-A-Day message nearly doubled, according to Joan Ware, RN, MSPH, Director, Cardiovascular Program, Utah Department of Health. Negative attitudes toward vegetables decreased by 30 percent, and the number of children who reported eating fruits and vegetables daily increased by 27 percent.

For additional information, contact Joan Ware, RN, MSPH, Director, Cardiovascular Program, Utah Department of Health, 288 North 1460 West, Salt Lake City, UT 84114-2868; (801) 538-6229.

SunSmart Campaign Focuses on Environmental Changes

Australia's SunSmart Campaign shows how a community can promote health and prevent chronic disease by modifying the environment, according to David Hill, PhD, Director, Centre for Behavioural Research in Cancer, Victoria, Australia.

Skin cancer is a major public health problem in Australia, where a person's lifetime risk of getting the disease is about two out of three, Dr. Hill said. The SunSmart Campaign included mass media, health education, and public relations efforts targeting primarily children, adolescents, and outdoor workers.

The campaign, which prompted the adoption of numerous environmental policies, considered the activities people engaged in when they became sunburned. For example in 1991, the SunSmart Campaign was included in the Victorian School Operations Manual, the basic rules under which government schools operate, and schools were urged to participate in the program. As a result, more elementary schools now require students to wear hats

to avoid sun exposure and provide students with sunscreen. Sun shelters have been constructed on many playgrounds.

Businesses also participated. For instance, the McDonald's franchise in Australia also agreed to provide shade over children's play areas in all newly constructed McDonald's.

Employers and unions became partners in the SunSmart Campaign. A trade union was funded to develop a prototype workplace policy, which was soon adopted by the entire union movement.

Also the uniform for surf lifesavers, who often serve as role models for young people, was changed to include broad-brimmed hats and long-sleeved T-shirts.

Early in the campaign, consumer guides to sunscreens were published to show that effective sunscreens were available at reasonable prices. The SunSmart Campaign then began marketing its own sunscreen products, to provide a price benchmark and ensure that sunscreens would be on the market at the lowest possible prices. The campaign also sells sun-protection clothing, hats, and sunglasses.

Initial funding was provided by the Victorian Tobacco Act, under which tobacco products are taxed and the funds used for health promotion. Although calculations of the cost-benefit relationship between the prevention programs and the direct and indirect costs of skin cancer are not complete, preliminary data suggest that for every dollar spent on prevention campaigns about $10 is saved, Dr. Hill said.

For additional information, contact David Hill, PhD, Director, Centre for Behavioural Research in Cancer, Anti Cancer Council of Victoria, 1 Rathdowne Street, Carlton South, Victoria, Australia 3053; 011-61-3-9-279-1111.

Minnesota Works with Native Americans

In 1991, Minnesota was charged with creating a comprehensive screening program with a special emphasis on reaching Native American women, said

The Austalian SunSmart Campaign worked to have protective canopies installed over pubic pools and to encourage people to wear widebrimmed hats, sunglasses, and sunscreen.

Annette Bar-Cohen, MA, MPH, Head of the Education and Coalition Unit for the Minnesota Department of Health in Minneapolis. "Adding to this challenge, in 1993, the national program focused state efforts specifically toward breast cancer screening for women aged 50 and above," Ms. Bar-Cohen said.

She cited some key points in developing such a program. If differences between Native American communities and a state health department need to be reconciled, they may need to be reconciled on the side of communities. Also, Ms. Bar-Cohen noted, when communities help to develop interventions, the programs are likely to have better outcomes and better use of resources than those developed without community involvement.

"Workable strategies have been to seek and then follow the advice of credible sources, to consciously acknowledge the influence of cultures in the administration of a state-community endeavor, and to understand that while state health departments may, of necessity, operate in yearly grant cycles, our partners work in their communities for the duration," she said.

"Community ownership of a health education program can make it become a permanent fixture in a neighborhood."

For additional information, contact Annette Bar-Cohen, MA, MPH, Head, Education and Coalition Unit, Minnesota Department of Health, 717 Delaware Street, SE, Minneapolis, MN 55440-9441; (612) 623-5552.

Pennsylvania Program Becomes Permanent Fixture in Community

"Community ownership of a health education program can make it become a permanent fixture in a neighborhood," said Jane Isaacs Lowe, PhD, Assistant Professor, University of Pennsylvania School of Social Work, citing an intervention involving a West Philadelphia middle school and surrounding community of 48,000 people, most of whom are low-income African-American families.

Dr. Lowe and colleagues conducted focus groups and random telephone surveys to identify people's cancer-related beliefs and practices. They then developed educational modules focusing on breast and cervical cancer, prostate cancer, colon cancer, smoking, nutrition, and health care access and resource issues. The University of Pennsylvania Cancer Center provided current information on the cancer research, treatment, and prevention.

They also identified community leaders who, in turn, helped them identify other influential persons such as neighborhood block captains and church and business leaders to serve on an advisory board.

Community health educators helped bring primarily word-of-mouth messages to settings such as choir practice or PTA meetings, she explained. They promoted behavioral change by helping people practice specific preventive strategies and by linking them with health resources for the early detection and treatment of cancer.

Seventh graders took a 10-week course on cancer, staffed booths at local health fairs, and visited elementary schools to teach younger children about why people should not smoke and why they should eat fruits and vegetables. They also prepared cancer education materials and a short videotape on smoking and provided health information about cancer, smoking, and nutrition to their families and peers. In addition, a support group was formed for students with family members who are seriously ill with cancer.

For more information, contact Jane Isaacs Lowe, PhD, Associate Professor, School of Social Work, University of Pennsylvania, 3701 Locust Walk, Philadelphia, PA 19104-6214; (215) 898-2507.

Social Marketing and Health Communications

Social Marketing Should Bring Results

The point of social marketing is simple: changing behavior. Academicians have many theories on using social marketing to change behavior, and the public health community has abundant

examples of behavioral changes they would like to see.

The gap between theory and practice must be narrowed, because neither can exist without the other, said William D. Novelli, MA, President of the National Center for Tobacco Free Kids in Washington, D.C. "Social marketing is theory-based, but it is not a theory—it is a practice," Mr. Novelli said. "Theory helps marketers understand why and how people act the way they do, and they need to know that to change behavior," he continued. Mr. Novelli said problems often arise, when organizations and individuals work without the benefit of theory and research.

Conversely, some academicians treat social marketing as only a theory, which they then compare to other theories, rather than to what it is—a real practice or process, Mr. Novelli noted. Successful social marketing must include some key elements:

- A relentless focus on the consumer (theories and data can help marketers develop a thorough understanding of their target audience, an understanding they must have to be effective in changing behavior).
- A systematic approach similar to the way in which a physician diagnoses and treats a patient or an accountant balances the books.
- A broad number of components (social marketing is much more than just advertising or communication).
- A strong focus on results.

"The name of the game is to change behavior," Mr. Novelli said.

For additional information, contact William D. Novelli, MA, President, National Center for Tobacco Free Kids, 1707 L Street, NW, Suite 800, Washington, DC 20036; (202) 296-5469.

Program Encourages Better Diet for Mothers and Children

Social marketing is an indispensable aspect of public health campaigns, although it is not the same as true health communication, said Vicki S. Freimuth, PhD, Associate Director for Communications at CDC and former Director of Health Communication and a Professor in the Department of Speech Communication at the University of Maryland in Upper Marlboro.

Dr. Freimuth and colleagues applied health communication theories to a project designed to increase consumption of fruits and vegetables among low-income women in Maryland.

After a six-month pilot intervention, the first step was to review background information and conduct formative research. Dr. Freimuth's group visited sites where WIC participants picked up their vouchers, conducted brief intercept interviews, and arranged several focus group discussions. They decided that the theme or message most likely to persuade the women to change their behavior was that eating more fruits and vegetables sets a good example for their children, she said.

Despite the widespread perception that health communication must use mass media, this campaign did not. Instead, campaign planners used a photo novella, similar to a workbook, at bimonthly nutrition education sessions and direct mail letters, which were sent to the women between the sessions. "Direct mail became a very important part of the intervention because we had attendance problems," she said.

Evaluating the results of the pilot intervention, Dr. Freimuth and colleagues concluded that meeting the goal of increasing fruit and vegetable consumption would be difficult unless these components were added to the intervention:

- Before each session, women received mailed invitations highlighting the benefits of attending.
- A collection of participants' favorite fruit and vegetable recipes were distributed.
- A children's activity book about eating fruits and vegetables was developed and distributed.

- Nutrition sessions were scheduled over two days instead of one day.
- Women participated in a lottery to win groceries, with their chances of winning increasing according to the number of sessions they attended.

Dr. Freimuth's group also recommended simplifying content, listening closely to the advice of peer educators, and evaluating each intervention site to identify differences in the WIC program that might influence the campaign.

For additional information, contact Vicki S. Freimuth, PhD, Associate Director for Communications, Centers for Disease Control and Prevention, Mail Stop D–25, 1600 Clifton Road, NE, Atlanta, GA 30333; (404) 639-7290.

Applying Social Marketing to Diabetes

In 1983, the Texas Diabetes Council began practicing what is now known as social marketing, recalls Dora A. McDonald, MPA, Chief, Bureau of State Health Data and Policy Analysis, Texas Department of Health. The group has focused its health education efforts on consumers, sought results, followed a systematic process, and taken a broad, integrated approach to solving health problems rather than relying only on media campaigns.

The Texas Diabetes Council—a group of citizens appointed by the governor—targets consumer and provider communities with a message of awareness and empowerment. "We focus on supporting people and helping them learn to manage their own health," she said.

Initial state funding targeted programs in the state's large Hispanic population. The program for Mexican-Americans showed early success, and the Texas Diabetes Council later obtained additional funding to broaden its outreach efforts to the general population and to the African-American community.

Between 1983 and 1988, limited funds prompted council members and Texas Department of Health staff to look for innovative ways to reach the targeted communities and consumers, she said. "During those early years, they chose projects that required no financial support other than some staff work to do research and planning, which are key components of social marketing."

The council and the health department were able to undertake more ambitious programs when legislative funds were appropriated for diabetes services and education, Ms. McDonald said.

The Texas Diabetes Council also has had success with a multimedia campaign to raise awareness of diabetes and encourage persons with diabetes to seek medical care and practice good diabetes control. Another successful outcome of the social marketing effort was the establishment of a state-of-the-art diabetes treatment and research center in a low-income, minority neighborhood in San Antonio in 1992.

For additional information, contact Dora A. McDonald, MPA, Chief, Bureau of State Health Data and Policy Analysis, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756-7446; (512) 458-7261.

Women's Health Issues

Preventing CHD Among Women

Although the death rate from coronary heart disease among U.S. women has dropped considerably over the past several decades, CHD remains the leading cause of death among women, said Janet Rich-Edwards, ScD, Associate Epidemiologist at Boston's Brigham and Women's Hospital. Currently, one-third of all deaths of American women each year are caused by heart disease. She advised that stronger education and prevention efforts are needed to help women reduce CHD risk factors such as these:

- Smoking is the leading cause of preventable death among both women and men, and smokers are three to four times as likely as nonsmokers to develop CHD.

- High levels of cholesterol are clearly linked to CHD but, in women, the ratio of a high-density lipoprotein (HDL) to total cholesterol may be more important than the total cholesterol level. Still, lowering the total cholesterol count generally produces good results, she said.
- Hypertension is an especially prevalent risk factor for older women: after the age of 65 years, 83 percent of black women and 66 percent of white women have high blood pressure.
- Women with diabetes face a risk of CHD three to seven times greater than that for women who do not have diabetes. Because cigarette smoking, obesity, and hypertension act in synergy with diabetes, controlling those risk factors is even more important for women with diabetes.
- Even mild to moderate obesity increases CHD risk. Women who maintain their ideal body weight have a 35- to 60-percent lower risk of heart disease than do obese women.
- Physical inactivity is another risk factor for CHD. Many studies show that even light to moderate levels of activity can reduce CHD risk.

For more information, contact Janet Rich-Edwards, ScD, Associate Epidemiologist, Division of Preventive Medicine, Brigham and Women's Hospital, 900 Commonwealth Avenue, East, Boston, MA 02215; (617) 432-2433.

Therapies Show Promise for Reducing Women's CHD Risk

Three therapies show great promise in preventing coronary heart disease among women, according to JoAnn E. Manson, MD, DrPH, Codirector of the Women's Health Initiative, Brigham and Women's Hospital in Boston.

Hormone Replacement Therapy

"[Because] one-third of a woman's life is spent in the postmenopausal years," Dr. Manson said, "it is important to understand hormone replacement therapy and its potential to improve health and the quality of life." Virtually all epidemiologic studies of postmenopausal estrogen therapy have found that it reduces a woman's risk of heart disease, she said. Limited data available on the newer combination therapy—estrogen and progestin—indicate that the CHD risk reduction is comparable with that of estrogen therapy alone.

Two major studies should yield more information about estrogen and combined hormone therapy, Dr. Manson said. The Women's Health Initiative, a 14-year clinical trial sponsored by the National Institutes of Health, should provide answers about hormone replacement therapy in a population at usual risk. The HERS project (Heart Estrogen Progestin Study of women at high risk of heart disease) should have results on secondary prevention in about four years.

Aspirin Therapy

Aspirin has prevented heart attacks in women with a history of cardiovascular disease, but "the jury is still out" regarding aspirin's benefits in primary prevention for women, she said. The Women's Health Study—an NIH-sponsored research project involving 40,000 women—is investigating the potential benefits of regular intake of low doses of aspirin, Dr. Manson said.

Antioxidant Vitamin Therapy

Evidence suggests that a high intake of antioxidants—micronutrients such as vitamin E, vitamin C, and beta carotene—may reduce women's and men's risk of heart disease by preventing the oxidation of low-density lipoprotein cholesterol, the "bad" form of cholesterol, Dr. Manson explained. "Antioxidants represent a promising area of research, but the benefits are inconclusive at this point," she said. Rather than recommend the use of vitamin supplements to lower the risk of heart disease, health professionals should urge people to eat more fruits and vegetables containing antioxidants, she concluded.

For additional information, contact JoAnn E. Manson, MD, DrPH, Codirector of Women's Health Initiative, Division of Preventive Medicine, Brigham and Women's Hospital, 900 Commonwealth Avenue, East, Boston, MA 02215; (617) 278-0871.

State Creatively Funds Women's Health Program

A program at the Illinois Department of Public Health focuses on health conditions that affect women. The program began in 1993 with a mandate from the Illinois legislature for the health department to develop more preventive and educational programs in areas such as breast and cervical cancer, said Doris A. Garrett, MPA, Administrator, Women's Health Section. However, the legislature did not provide funding for the initiative from the state's general revenue funds.

Instead, the staff of the new women's program has obtained money from federal grants dedicated to various women's health problems. For example, its osteoporosis program has received funding from CDC. The programs on breast and cervical cancer and Alzheimer's disease have benefitted from instituting a check-off line on state income tax forms for taxpayers' contributions. Money collected from the check-off must be used for research into the respective diseases, and the research must be conducted by Illinois scientists, Ms. Garrett said. "Our message to other states interested in establishing women's health programs is that you can do it without general revenue funds—if you're creative," she said.

For more information, contact Doris A. Garrett, MPA, Administrator, Women's Health Section, Division of Health Promotion, Illinois Department of Public Health, 535 West Jefferson Street, Second Floor, Springfield, IL 62761; (217) 782-3300.

1996 PREVENT CHRONIC DISEASES

Nebraska Program Increases Mammography Services

Nebraska has traditionally ranked near the bottom nationally for mammography use, recalled Rosemary Bretthauer-Mueller, Media Liaison with the Nebraska Department of Health in Lincoln. To address that problem, Nebraska's Breast and Cervical Cancer Screening Program formed a partnership with the Nebraska Medical Association to conduct an intensive, statewide enrollment campaign.

The campaign, which targets women aged 50 years and older, has increased women's awareness of the screening program and knowledge of the recommended breast and cervical cancer screening schedule, she said. The interventions—directed toward women and their health care providers—have included a media campaign, community-based coalitions, and professional education activities.

"Working with the Nebraska Medical Association has provided our statewide screening program not only access to the providers but also credibility, both with the providers and with the women we're trying to reach," Ms. Bretthauer-Mueller noted.

For more information, contact Rosemary Bretthauer-Mueller, Media Liaison, Every Woman Matters Program, Nebraska Department of Health, 301 Centennial Mall South, P.O. Box 95007, Lincoln, NE 68509-5007; (402) 471-0552.

Osteoporosis Messages Reach Teens

Although osteoporosis affects women late in life, their behavior during adolescence has much to do with whether they will develop the disease, said Ruth Palumbo, MS, RD, Director of Health Promotion, Nutrition, and Chronic Disease Prevention at the Massachusetts Department of Public Health in Boston. "Many young girls fail to build good bones because of poor diet, bad habits such as drinking or smoking, and lack of exercise," she said.

Dr. James S. Marks, Director, NCCDPHP, welcomes attendees during the opening session.

The Massachusetts Osteoporosis Awareness Program targets mature women, adolescent girls, and health professionals. Young girls present the greatest opportunity, and biggest challenge, Ms. Palumbo said. They often stop drinking milk, which has calcium necessary to build strong bones, and start drinking diet colas because they are afraid of weight gain, she explained, and do not know that a poor diet can lead to premature menopause and osteoporosis.

Health educators developed a humorous, thought-provoking play called "This Is Your Life," which addresses health concerns about nutrition, fitness, self-esteem, body image, tobacco, eating disorders, and osteoporosis prevention; a teachers' guide; and an educational brochure, *Beautiful Bones*, which spoofs popular teenage fashion magazines.

For more information, contact Ruth Palumbo, MS, RD, Director, Health Promotion, Nutrition, and Chronic Disease Prevention, Massachusetts Department of Public Health, 250 Washington Street, Fourth Floor, Boston, MA 02108-4619; (617) 624-5437.

Adolescent and School Health

CDC Program Targets Risky Behavior

As part of the "Programs That Work" project, the CDC is identifying and distributing information on programs effective in preventing health-risk behaviors among school-age youths. "The goal is to move these programs from the research arena into use by letting educators and policymakers know about them," explained Ellen D. Sogolow, PhD, formerly with the Division of Adolescent and School Health, NCCDPHP. State and local education agencies, health departments, and others will be informed about the effective programs.

The Programs That Work project initially addressed sexual risk behaviors, and programs proven effective in reducing tobacco use among youths are next on the list.

For more information, contact Susan F. Wooley, PhD, Health Education Specialist, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–31, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5347.

The major problems from tobacco use are yet to come because of the delay of several decades between the time when young adults start to smoke and the harm from tobacco becomes evident.

Video Game Encourages Healthy Choices

The video game "What Ya Gonna Do?" is designed to teach youths to make appropriate decisions, provide facts to help them make healthy choices, and show them the outcomes of their decisions, said Brian A. O'N. Derby, President of The Helix Group, Inc. The company combined trial and error learning with high-intensity graphics, animation, and interactivity to produce this educational game.

The interactive video format holds teens' attention long enough for them to absorb the positive health messages embedded in the game, Mr. Derby said. The premise is that youths, he explained, "ignore decision-making opportunities, fail to recognize them until it's too late to avoid trouble, or do not take into account all the possible outcomes."

Players select a scenario that leads to several choices at critical points in the action. A character asks, "What ya gonna do?" and the player must choose a path at each decision point. Choices that lead to healthy outcomes earn more points than those leading to poor outcomes.

The demonstration version of the game contains realistic situations involving teenage sexuality, teenage pregnancy, interpersonal violence, HIV/AIDS, and drug use—major public health problems among young African-Americans in Washington, D.C., where the game was introduced. But the game can be designed to suit any target audience, Mr. Derby said.

The sophistication of the computer technology can be modified for a client's interests and budget. It could be used in public health clinics for adolescents, school resource rooms or libraries, and community organizations for teenagers, Mr. Derby suggested. He also is working with HMOs on adapting the game for health assessments.

For more information, contact Brian A. O'N. Derby, President, The Helix Group, Inc., 6196 Oxon Hill Road, Suite 370, Oxon Hill, MD 20745; (301) 839-7311.

CDC Readies School Guidelines

The CDC's new Guidelines for School Health Programs to Promote Healthy Eating are designed to help school personnel plan and carry out nutrition policies and programs for students in prekindergarten, primary, and secondary schools. The guidelines, which offer a broad framework for developing detailed nutrition programs, call on schools to

- Adopt a policy to encourage healthful eating through nutrition classroom education.
- Make nutrition education part of a sequential, comprehensive school health education curriculum.
- Provide nutrition education through appropriate activities that involve social learning strategies.
- Link school food service with other components of a comprehensive school health program, such as physical education.
- Train teachers to focus on behavioral change strategies.
- Involve parents and the community to support and reinforce nutrition education.

For more information, contact Howell Wechsler, EdD, MPH, Health Education Research Scientist, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–33, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5559.

Tobacco and Health

Tobacco: The Worst Is Yet to Come

The major problems from tobacco use are yet to come because of the delay of several decades between the time when young adults start to smoke and the harm from tobacco becomes evident, warned Alan Lopez, PhD, Scientist with the World Health Organization's Programme on Substance Abuse Prevention, Advocacy, and Promotion, based in Geneva, Switzerland. "By middle

age, one in three deaths among tobacco users is caused by tobacco," he added.

Dr. Lopez pointed out that there were only five cases of lung cancer per 100,000 population in 1930—long before smoking by U.S. males peaked in 1950. The rise in deaths from lung cancer started in 1960, and by 1985, there were 75 cases per 100,000. "In contrast," he said, "lung cancer is extremely rare in developed countries where the population doesn't smoke."

Don't be misled by statistics showing that tobacco harms fewer women than men in the United States, he cautioned. "Remember, women haven't been smoking for as long as men. The significant rise in women smoking didn't begin until the 1950s. By that time, smoking by men had already peaked."

Statistics show that only 5 percent of deaths among middle-aged women in 1965 were tobacco-related. By 1975, that number had risen to 15 percent, and by 1995, to 31 percent. "Worldwide, smoking kills almost 500,000 women a year," Dr. Lopez said, "and half of those are in the United States."

He noted that lung cancer has surpassed breast cancer as the leading cause of death from cancer among U.S. women. "Lung cancer also exceeds breast cancer in Denmark and Scotland," he said. "And in Canada, it is very close."

But lung cancer is only one of the problems resulting from tobacco use. "In fact, tobacco currently kills more people from associated diseases than from lung cancer," Dr. Lopez said.

The U.S. Surgeon General estimated that in 1985, tobacco killed 400,000 Americans—only one-fourth of them from lung cancer. By 1990, Dr. Lopez says tobacco caused 460,000 deaths, which was 21 percent of all deaths in the United States. Thirty-four percent of all cancer deaths were smoking-related, and 45 percent of all cancers in men were smoking-related.

If cancer deaths from smoking were subtracted, cancer mortality among middle-aged persons would be at least stabilized and would probably decline. "In other words," he said, "without tobacco, we would not have the dramatic cancer epidemic we're told we have in the United States."

Dr. Lopez predicts that in the 1990s, about two million people will die annually from tobacco in industrialized countries. In the next decade, about three million people will die annually, and that increase will primarily be the result of tobacco's delayed effects on female smokers.

For more information, contact Alan Lopez, PhD, Scientist, Programme on Substance Abuse Prevention, Advocacy, and Promotion, World Health Organization, Avenue Appia, 1211 Geneva 27, Switzerland; 011-791-23-74.

Programs Target Behavior Changes for Better Health

Nebraska Teens Kick Butts

The CDC-funded Quit and Win teen smoking intervention offered prizes to participating students at four senior high schools in Douglas County, Nebraska, and classes to help them quit smoking and reinforce their coping skills. Project staff asked businesses near the schools to post warnings to remind them of the law against selling tobacco products to minors and to increase the surveillance of students under the age of 18 years. Antismoking posters also were made and displayed in the schools.

Participants were given small prizes such as boxer shorts declaring, "I'm Kicking Butts Today," explained Dyann Matson Koffman, MPH, DrPH, Public Health Educator in the NCCDPHP's Division of Adult and Community Health. Students who completed the program also had a chance to win larger prizes such as a color television or compact disc player. Enrollees included 105 tobacco-using students (nearly 9 percent of the estimated 28 percent of students who smoked in the four schools) and 56 support people, such as nontobacco-using students and faculty.

More than 90 tobacco-using students completed the four-week cessation program. At the three-month evaluation, nearly 30 percent had quit using tobacco. After 12 months, the success rate was 18 percent (based on those who completed questionnaires). "The success rate could be higher," Dr. Matson Koffman said, "because the status of 44 students who did not complete the final evaluation was uncertain."

For more information, contact Dyann Matson Koffman, MPH, DrPH, Public Health Educator, Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–46, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5531.

Smokeless Tobacco Use Increases

The use of chewing tobacco and snuff has increased significantly in recent years, with sales increasing from $0.8 billion in 1986 to $1.6 billion in 1993, according to David E. Nelson, MD, MPH, Medical Epidemiologist with the Division of Adult and Community Health, NCCDPHP. Smokeless tobacco use causes many health problems, ranging from gum recession to increased risks of cardiovascular disease and cancers of the oral cavity, larynx, and pharynx. Most users are white or Native-American males aged 10 to 30 years from rural areas.

In a four-state study of smokeless tobacco use among men, Dr. Nelson and colleagues found that the prevalence of smokeless tobacco use was 16.0 percent in West Virginia, 14.4 percent in Montana, 6.4 percent in Indiana, and 6.3 percent in Iowa. In those states, the people most likely to use smokeless tobacco were younger than 35 years of age, had less than a high school education, and lived in rural areas. A major factor affecting continued or increased use is the tobacco industry's massive advertising and marketing campaign directed at those groups, he noted.

"Ongoing surveillance is needed in more states and nationally," he said. Prevention efforts should include school-based education, increased excise taxes on smokeless tobacco, enforcement of minors' access laws, and advertising and promotion restrictions.

For more information, contact David E. Nelson, MD, MPH, Medical Epidemiologist, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–30, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5629.

Pennsylvania Tests Minors' Access Law

In a Pennsylvania study of minors' access to tobacco products, the Montgomery County Health Department (MCHD) in Norristown sent letters to more than 800 establishments advising them of their responsibility to not sell tobacco to minors, noted Randall Scott Landes, former Community Health Specialist Supervisor for the department. After the MCHD selected 121 sites to test for compliance, six teenage students then attempted to buy tobacco products.

Of the 121 stores, 39 percent of the merchants sold to minors, 61 percent refused to do so, and only 23 percent asked students for identification. The MCHD held a press conference where the students were interviewed and health department staff released a list of the stores that did and did not comply with the law.

"If only one store in a community sells tobacco illegally, the chances of underage smoking increase considerably," he said. The MCHD will continue to monitor compliance and to educate merchants, emphasizing the need to ask for identification from children who appear to be younger than 18 years of age, Mr. Landes stated. Health department staff are also working with local police to promote these efforts.

For more information, contact Laurel Spielberg, PhD, Director, Division of Chronic Disease and Injury, Montgomery County Health Department, 1 Lafayette Place, Suite 325, Norristown, PA 19401; (610) 278-5117.

Demonstrations about locating chronic disease resources on the Internet's World Wide Web proved popular throughout the conference.

Nurses' Attitudes On Smoking Cessation

To study nurses' attitudes, beliefs, and practices regarding smoking cessation counseling for pregnant women, Mildred R. Naquin, PhD, CHES, Assistant Professor, Department of Kinesiology and Health Studies, Southeastern Louisiana University, and Marie Zannis, PhD, CHES, Assistant Professor, Health and Education, Nichols State University, distributed a written questionnaire to all public health nurses in Louisiana's 62 parishes.

Of those responding, 9 percent were smokers, 24 percent were former smokers, and 67 percent had never smoked. Drs. Naquin and Zannis reported these major findings from the respondents:

- 73 percent routinely informed patients about smoking risks during pregnancy.
- 51 percent always gave information on the dangers of passive smoke exposure to infants and children.
- 33 percent expressed confidence in counseling and educating pregnant women on smoking cessation.
- 33 percent always suggested specific steps for behavior change.
- 69 percent favored having a smoking cessation program at their clinics.
- Only 65 percent considered tobacco use an important prenatal risk factor.

To better train nurses, a number of steps, including recruiting a professional volunteer as a perinatal substance abuse specialist at each public health clinic and two community volunteers to implement smoking cessation programs, are being put in place.

For additional information, contact Mildred R. Naquin, PhD, CHES, Assistant Professor, Department of Kinesiology and Health Studies, Southeastern Louisiana University, SLU–845, Hammond, LA 70402; (504) 549-2129; or Marie Zannis, PhD, CHES, Assistant Professor, Health and Education, Nichols State University, Thibodaux, LA 70310; (504) 448-4270.

Managed Care

What Is Role of Public Health under Managed Care?

Managed care is increasingly in the public health business—"that is delivering preventive services to defined populations," said Jeffrey R. Harris, MD, MPH, former Managed Care Coordinator for CDC. "When we think about working with managed care organizations, we not only need to think about what they can do

for us, but about what we can do to help them, because their job and our job are increasingly converging."

Noting that 50 million Americans are already enrolled in health maintenance organizations, Dr. Harris outlined CDC's seven-point action plan for incorporating prevention practices into managed care:

- Work with managed care organizations, purchasers, and state and local health departments in key areas of prevention effectiveness. Examples include defining the burden of chronic diseases and assessing the effectiveness of prevention strategies.
- Collaborate with states, managed care organizations, and the Health Care Financing Administration to design and implement Medicaid managed care arrangements that specify cost-effective preventive services and that hold managed care organizations accountable for their delivery.
- Document the health effects of the reorganized systems that deliver preventive services.
- Bring managed care organizations and public health agencies together on common issues and help to refine the role of public health agencies.
- Collaborate with managed care organizations and state and local health departments to standardize and improve information systems.
- Develop measures to monitor and ensure the quality of preventive services delivered by all providers.
- Build partnerships and mutual understanding among CDC, public health departments, managed care organizations, and purchasers.

"I believe strongly that managed care organizations can do important public health work," said Dr. Harris. "But if we're going to have them do that, we're going to have to make our programs and our information systems work for them."

For more information, contact Kathy Cahill, Managed Care Coordinator, Office of the Director, Centers for Disease Control and Prevention, Mail Stop D–33, 1600 Clifton Road, NE, Atlanta, GA 30333; (404) 639-4500.

Tennessee Develops Medicaid Fee-for-Service Program

On January 1, 1994, Tennessee changed its Medicaid program from a fee-for-service program to a capitated system called "Tenncare," said Richard E. Cochran, MPA, Director, Special Initiatives, Tennessee Department of Health.

Under Tenncare, the state pays capitation to 12 managed care organizations that range from 5,000 to 700,000 enrollees. The managed care organizations had to develop their own networks of providers and negotiate rates of payment. "Needless to say, it was utter chaos, as we put 20 percent of our state population under that managed care system in a state that had no experience in managed care," he said.

In addition to the previous Medicaid recipients, 400,000 new enrollees who had been uninsured were added to Tenncare. "Now we have about 95 percent of our population covered under some sort of third-party arrangement," he noted.

Dr. Cochran urged other public health officials to become active in managed care and to "Get used to it. Adapt to it."

For additional information, contact Richard E. Cochran, MPA, Director, Special Initiatives, Tennessee Department of Health, 3rd Floor, Cordell Hull Building, 426 5th Avenue, North, Nashville, TN 37247-4401; (615) 532-7764.

Concerns About Medicare HMOs Raised

As part of the San Diego Senior Health Initiative, investigators studied the hospital records of older patients to determine if rates of preventable hospital readmissions differ according to the type of payer/provider involved. Some 450 patients aged 65 years and older who had received

physician-prescribed home health care were grouped by the payer/provider type: a Medicare HMO, Medicare fee-for-service plan, or dual enrollment in Medicare and Medicaid, explained Bettina Experton, MD, MPH, President of Humetrix, Inc., a health care research and consulting firm. They reported these findings:

- Statistically significant results were found with the Medicare HMO and Medicare fee-for-service groups, Dr. Experton said, but not with Medicaid.
- Admission rates were about the same for both groups.
- Overall, Medicare HMO patients were four times as likely to have been readmitted to the hospital as patients receiving fee-for-service Medicare.
- The rate of preventable readmissions was three and a half times as high for the Medicare HMO patients.

Although the researchers did not investigate the reasons for readmissions, Dr. Experton speculates that some might have been prevented by more physician visits or greater use of home health care. These results may mean that HMOs are restricting access to services, she added.

The results of the research have "significant policy implications," given the heightened interest in reducing health care costs by enrolling Medicare recipients in managed care plans, she noted. Providers in the large southern California health care system whose HMO she studied "were concerned about the findings," she said.

For more information, contact Bettina Experton, MD, MPH, President, Humetrix, Inc., 4350 La Jolla Village Drive, Suite 300, San Diego, CA 92122; (619) 546-4359.

Policy and Health

Lessons Learned from the Breast and Cervical Cancer Mortality Prevention Act

Passage of the Breast and Cervical Cancer Mortality Prevention Act of 1990 resulted from hard work, understanding the political process, and collaboration among members of the public health community, private sector, and Congress.

Concern about breast cancer came to the forefront in the late 1980s, largely because of prominent women such as former First Lady Betty Ford, who urged American women to get mammograms, noted Barbara W. Levine, Director, Government Relations and Public Affairs, American Public Health Association.

Rep. Henry A. Waxman of California introduced the bill in the House at the encouragement of Women's Congressional Caucus members, many of whom were breast cancer survivors. Sen. Barbara A. Mikulski of Maryland introduced the companion bill in the Senate.

"We knew there was a problem and a solution,"said Ms. Levine. "One-third of breast cancer deaths can be prevented through early detection." So the public health community pulled together to educate members of Congress about the benefits of early detection through mammography and Pap tests.

The bills passed in the House and Senate, and on August 10, 1990, President George Bush signed the Breast and Cervical Cancer Mortality Prevention Act, with $30 million provided for funding.

"It's a tribute to the public health community that they made the case for this program—and that this program is based at CDC," Ms. Levine said.

Public health professionals can apply these lessons learned from that experience to other types of chronic disease programs:

- Be able to show legislators the problem in very specific terms.
- Bring together a broad coalition of respected organizations.
- Identify key congressional leaders, those with the most influence, and "get them on board."
- Identify witnesses from key Congressional districts whose members are sitting on the appropriate committees.
- Issue action alerts to APHA members, urging the necessity of one-on-one, in-person education and advocacy.

For more information, contact Barbara W. Levine, Director, Government Relations and Public Affairs, American Public Health Association, 1015 15th Street, NW, Washington, DC 20005; (202) 789-5648.

Applying the Law at the State Level

The first step to carrying out the Breast and Cervical Cancer Mortality Prevention Act was making screening available to women most likely to develop breast cancer—those aged 50 years and older, according to Brenda Nickerson, MSN, Director, Division of Cancer Prevention and Control, South Carolina Department of Health and Environmental Control.

To reach those women, state health officials established a task force and worked with CDC to determine screening policies, which women would be screened, and what services were already in place.

An early obstacle involved a turf dispute with family planning centers, Ms. Nickerson recalled, which under Title X, could provide breast and cervical cancer screening. But they serve primarily younger women and rarely can afford to provide follow-up services.

The perception that private doctors would not work with public health programs was another problem, she said. State health officials solicited the support of everyone in the health care system and found a number of physicians and other health care workers who were willing to give free time to provide services.

Also, public health officials cannot assume that if a woman is screened and cancer is detected that she will seek the appropriate treatment. "People have their own opinions and beliefs. We then must determine what interventions are necessary to change behaviors so that women will be screened for these cancers and get treatment if they need it," Ms. Nickerson said.

Surveillance of program activities was also important. South Carolina is working on a data system and on determining which demographic indicators and surveillance terms will ensure that data are consistent and comparable. A base cancer registry has been initiated and federal funding provided.

Ms. Nickerson said she could not stress too strongly the importance of partnerships, from the private physicians to organizations

A shrouded cigarette vending machine at the conference site poignantly demonstrates how sensibilities have shifted regarding tobacco use.

at the local and national level: the American Cancer Society, the American Association of Retired Persons, the American Federation of Teachers, the American Indian Health Association, the YWCA, the National Education Association, and many others who are involved in the effort.

She also suggested that states follow the "Rules for Advocacy," developed by Virginia S. Bales, MPH, Deputy Director of NCCDPHP:

- Advocacy for public policy must have a clear agenda.
- Advocacy must be based on science.
- Advocates must have the discipline to be articulate.

Both Ms. Levine and Ms. Nickerson urged that similar efforts be applied to other chronic illnesses such as heart disease and diabetes.

For additional information, contact Brenda C. Nickerson, MSN, Director, Division of Cancer Prevention and Control, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, SC 29201; (803) 737-3934.

Improving the Public's Health Through Medicaid Reform

Two basic issues around reforming the Medicaid program are money and power, said Randolph L. Gordon, MD, MPH, State Health Commissioner, Virginia Department of Health. "How much money are we going to put into Medicaid and Medicare, and who is going to make decisions—the feds or the states?"

Virginia has decided to place less money in Medicaid and Medicare, he noted. "And what that means is that choices have to be made, because the only way we're going to save money in those programs is either by limiting eligibility or reducing the benefits packages or services."

Someone is going to have to decide how to limit eligibility or the benefits package, he said. "If the control goes to the states, then we're going to have 50 different Medicaid programs, and the opportunity for those of us in public health to be more involved with those decisions."

Dr. Gordon mentioned several opportunities for health professionals to improve the public's health through reform:

- Help Medicaid agencies make choices that support prevention and a population view of medicine.
- Know the health plans and their representatives, help them to develop policies, and monitor their performance.
- Build a health information system in state and local health departments.

For additional information, contact Randolph L. Gordon, MD, MPH, State Health Commissioner, Virginia Department of Health, P.O Box 2448, Richmond, VA 23218-2448; (804) 786-3561.

Translating Science into Reasonable Policy

One challenge of science and medicine is translating research findings into policies that benefit public health. Epidemiologists can be key players in that vital process, said Dennis M. Perrotta, PhD, CIC, President, Council of State and Territorial Epidemiologists (CSTE) and Chief, Bureau of Epidemiology, Texas Department of Health in Austin.

"Epidemiologists can help to develop and evaluate programs applicable to chronic diseases," he said, noting that the CSTE is involved in a joint project with CDC to place chronic disease epidemiologists in selected states.

The council also is developing an assessment tool that state epidemiologists can use to identify the gaps and strengths in their chronic disease prevention programs and more effectively set goals and funding priorities, Dr. Perrotta said. When the assessment is completed, state public health officials have a clear picture of their epidemiologic programs and capacity.

The CSTE plans to develop guidelines and materials that states can use to administer the evaluation on their own. Currently, contractors conduct the assessments, and that offers the

"Ebola makes a great story because of the horrific images. During those six to eight weeks in Zaire, about 245 deaths occurred. But during the same six weeks in the United States, more than 30,000 deaths related to tobacco use, 20,000 related to diet and physical inactivity, and 8,000 related to alcohol use occurred," according to David Satcher, MD, PhD, Director, CDC, and Administrator, ATSDR, who spoke during the closing session of the conference.

benefit of an outside perspective, Dr. Perrotta noted. "It's too early to tell" if the tool will increase the number of epidemiologists in state public health programs, he said.

For additional information, contact Dennis M. Perrotta, PhD, CIC, Chief, Bureau of Epidemiology, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756; (512) 458-7268.

Leadership, Advocacy Keys for Success

Leadership and advocacy will be required to ensure that the increased respect and funding from policymakers for chronic disease control activities continue in all levels of government, advised Mark Pertschuk, JD, formerly General Counsel for Americans for Nonsmokers' Rights.

"The Gingrich-Limbaugh revolution poses tremendous barriers to public health policy at the national level," he said. "There are already at least five proposals in Congress to stop or subvert any meaningful action by the FDA on tobacco. Still, during the past 20 years, tremendous success has been achieved by municipalities and counties and, given the current climate at the national level, that is where the future lies."

Mr. Pertschuk noted that the greatest drop in per capita tobacco consumption occurred from 1978 to 1989 and credited that 26 percent decrease—about 2 to 3 percent per year—to a shift from national education efforts to local policy efforts. During that time, the acceptability of smoking both in public and the workplace declined greatly, resulting in the adoption of hundreds of local antismoking ordinances.

But the tobacco industry, aware of the success being achieved locally, is pushing hard for legislation at the state and federal levels that will override local and state tobacco control ordinances. "You must watch this area carefully," he warned.

For more information, contact Americans for Nonsmokers' Rights, 2530 San Pablo Avenue, Suite J, Berkeley, CA 94702; (510) 841-3032.

State-Level Advocacy in California

According to Dileep G. Bal, MD, MPH, Chief of Cancer Control for California, smoking in that state is decreasing at a rate almost three times greater than the rest of the nation. Since 1988, the percentage

of California's population that smokes has gone from 26.7 percent to 20.3 percent.

Dr. Bal emphasized that you should never let anyone tell you that you cannot do something unless a specific statutory or regulatory reason exists. "Institutionalize cancer prevention and control efforts into the very fabric of your organization, and make everyone realize that you're there to stay," he said. He offered these tips to health officials developing cancer education programs:

- Validate the scientific basis of your objectives.
- Establish achievable objectives.
- Outline specific doable activities.
- Study how others handled these objectives—learn from their mistakes.
- Carefully select people for each step.

Gaining the financial resources can be difficult, but there are many sources to approach, including tobacco tax initiatives; other special taxes; redirection of funds from other sources; outside funding such as foundations; federal funding; fines and penalties specifically earmarked for a cause; designated license fees; and, as a last resort, the general fund.

"One problem we in prevention face is that public health institutions are heavily infectious disease oriented, and that is reflected in their funding," Dr. Bal noted, even though the leading causes of death are chronic diseases.

Getting funds also requires gaining the support of policymakers. "Make everyone aware of your issue, and make them realize that there is more to be gained by supporting you than opposing you," he said.

For more information, contact Dileep G. Bal, MD, MPH, Chief, Cancer Control Branch, California Department of Health Services, P.O. Box 942732, Sacramento, CA 94234-7320; (916) 322-4787.

Breakthrough at the Federal Level

Several events in the late 1970s and early 1980s started breast cancer toward the prominence it has today, explained Kerrie B. Wilson, National Vice President for Government Relations for the American Cancer Society. She noted a push for education and mammography from celebrities and political spouses, who candidly spoke out about breast cancer and urged women to learn about the disease. "But most important," Ms. Wilson said, "was the introduction of survivors into the movement."

The joining of forces in support of Title XV, the first nationwide comprehensive screening program, was the beginning of the public health infrastructure for breast cancer, she explained. "Various groups had worked together on several different issues, but until they united in support of Title XV, there wasn't any common focus."

That partnership led to a unified group effort on other issues such as Medicare coverage for mammography, state-mandated private insurance coverage for mammography, and the Mammography Quality Standards Act of 1992.

When the National Breast Cancer Coalition was formed in 1991, it included "the traditional partners, but it emphasizes the individual," explained Ms. Wilson. "Women and survivors are advocates for the disease and also decision makers about how federal funds are spent." She credits the group's success with its focus on a single goal—the eradication of breast cancer.

The organization has been instrumental in soliciting grassroots signatures to take to Capitol Hill in support of additional funding for breast cancer. Its 1993 campaign not only resulted in additional funding, she said, "it got President Clinton to declare breast cancer a national problem and the Secretary of Health and Human Services, Donna E. Shalala, PhD, to convene a national conference on breast cancer."

For more information, contact Kerrie B. Wilson, National Vice President, Government Relations, American Cancer Society, 316 Pennsylvania Avenue, SE, Suite 200, Washington, DC 20003; (202) 546-4011.

"One problem we in prevention face is that public health institutions are heavily infectious disease oriented, and that is reflected in their funding."

cdnotes

Health Observances

- ***American Heart Walk*—October 7–8**
  American Heart Association
  (800) AHA-USA1
  and local chapters
- ***National School Lunch Week*—**
  October 14–18
  American School Food Service Association
  (703) 739-3900
- ***National Health Education Week*—**
  October 23–29
  National Center for Health Education
  (212) 334-9470
- ***Breast Cancer Control Month*—**
  October
  American Cancer Society
  (800) ACS-2345
  (404) 320-3333
- ***National Spina Bifida Prevention Month*—October**
  Spina Bifida Association of American
  (800) 621-3141
  (202) 944-3285
- ***National Dental Hygiene Month*—**
  October
  American Dental Hygienists Association
  (312) 440-8900
- ***National Campaign for Healthier Babies Month*—October**
  March of Dimes Birth Defects Foundation
  (914) 997-4600

New Surgeon General's Report Spotlights Physical Activity

Just published in July 1996, *Physical Activity and Health: A Report of the Surgeon General* brings together, for the first time, what has been learned about physical activity and health from decades of research. Among its major findings are that people who are usually inactive can improve their health and well-being by becoming even moderately active on a regular basis; physical activity need not be strenuous to achieve health benefits; and greater health benefits can be achieved by increasing the amount (duration, frequency, or intensity) of physical activity.

Regular physical activity that is performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness and death in the United States. Regular physical activity improves health by reducing the risk of dying prematurely, the risk of dying from heart disease, and the risk of developing diabetes, high blood pressure, or colon cancer; by helping to control weight, reduce high blood pressure, and build and maintain healthy bones, muscles, and joints. It also promotes psychological well-being and reduces feeling of anxiety and depression.

For information on ordering the report, or for copies of the Executive Summary, At-A-Glance, or fact sheets, contact the Division of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–46, 4770 Buford Highway, NE, Atlanta, Ga 30341-3724; (770) 488-5820; 1-888-CDC-4NRG or 1-888-232-4674 (toll free); http://www.cdc.gov.

Diabetes Education Program Created

The Centers for Disease Control and Prevention and the National Institutes of Health have joined forces to develop a major new initiative, the National Diabetes Education Program (NDEP), with other federal agencies and numerous public and private sector partners. Jointly administered through NCCDPHP's Division of Diabetes Translation and the National Institute of Diabetes, Digestive and Kidney Diseases, the NDEP will be the centerpiece of national efforts to ensure that patients, health care providers, and the public become aware that diabetes is a serious illness with many preventable complications.

For more information, contact Faye L. Wong, MPH, RD, Associate Director of Diabetes Education, Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–10, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5037; E-mail: flw2@ccdddt1.em.cdc.gov.

Chronic Disease Conference Slated for December 1996

Phoenix, Arizona, is the location for the Eleventh National Conference on Chronic Disease Prevention and Control, sponsored by the Centers for Disease Control and Prevention and the Association of State and Territorial Chronic Disease Program Directors. The theme for the meeting, which runs from December 3–5, is "Chronic Disease Prevention and

Control: Building Healthier Communities Through Partnerships and Linkages."

For more information or to register, contact Professional and Scientific Associates, 2635 Century Parkway, Suite 990, Atlanta, GA 30345-3112; telephone (404) 633-6869; fax (404) 633-6477; E-mail psai@ccdod1.em.cdc.gov.

Oral Health Program Joins NCCDPHP

In spring 1996, CDC's Oral Health Program was transferred to NCCDPHP's Division of Cancer Prevention and Control. For 20 years, the Oral Health Program has provided leadership in improving the quality of water fluoridation, assessing the risks and benefits of fluoride, and extending this population-based preventive measure to new communities. This program provides leadership in building coalitions, developing new partnerships, and broadening constituencies, and it also assesses the risks of transmission of infectious diseases, updates guidelines to minimize those risks, investigates disease outbreaks and environmental hazards in the dental setting, and identifies emerging problems.

For further information, contact Donald W. Marianos, DDS, MPH, Director, Oral Health Program, Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop F–10, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-3025.

Collaborations for Breast Health Outreach

Recently, CDC collaborated with Avon's Breast Cancer Awareness Crusade, the New York State Department of Health, and public broadcast station WQED in Pittsburgh, to produce the "Building Partnerships for Breast Health Outreach" teleconference. Broadcast on April 24, 1996, to more than 600 sites and 15,000 participants via satellite, this teleconference highlighted community programs nationwide that developed strategies to reach underserved, minority, and older women with breast cancer education messages and early detection services. It also identified problems and barriers that community programs are facing in reaching women in priority populations.

Among the follow-up materials are a newsletter and a resource package that will include an edited version of the videotape. The package will be available to the public, at cost, by fall 1996. For more information, contact Division of Cancer Prevention and Control, External Communications, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mail Stop K–64, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-4751.

Division of Reproductive Health Has New Director

Lynne S. Wilcox, MD, MPH, has been named Director of NCCDPHP's Division of Reproductive Health. Dr. Wilcox, who has been with the Centers for Disease Control and Prevention for 8 years, has extensive experience in addressing public health issues related to women's and children's health. Her previous work includes assignments with the Georgia Division of Public Health and the Spina Bifida Association.

Dr. Wilcox received her medical degree from the Medical College of Georgia, her master of public health degree from The Johns Hopkins University, and is board certified in family medicine and preventive medicine. She completed a postdoctoral fellowship in perinatal epidemiology at The Johns Hopkins University and the Epidemic Intelligence Service at CDC. Dr. Wilcox is also Clinical Associate Professor of Family and Preventive Medicine at the Emory University School of Medicine.

Health Observances

- ***National Diabetes Education Week*—November 4–8**
  American Association of Diabetes Educators
  (800) 338-DMED
- ***Great American Smokeout*—November 16**
  American Cancer Society
  (800) ACS-2345
  (404) 320-3333
- ***National Diabetes Month*—November**
  American Diabetes Association
  (800) 232-3472
  (703) 549-1500
- ***National Epilepsy Month*—November**
  Epilepsy Foundation of America
  (800) EFA-1000
  (301) 459-3700
- ***Child Safety and Protection Month*—November**
  National PTA
  (312) 670-6782
- ***World AIDS Day*—December 1**
  American Association for World Health
  (202) 466-5883

Educational Grant Will Fund New Osteoporosis Program

The Association of State and Territorial Chronic Disease Program Directors (ASTCDPD) received a $160,000 grant from Merck & Co. to fund a new program on osteoporosis prevention, detection, and control. The program is the first effort of ASTCDPD's new Women's Health Initiative. Funds will allow states with demonstrated success in the area of women's health to provide counsel to states just beginning similar activities. The funds also will allow coalition development to help organize partnering efforts and regional and statewide workshops related to osteoporosis.

For more information, contact Eleanor Dixon-Terry, Program Director, Chronic Disease, Association of State and Territorial Health Officials, Suite 200, 415 Second Street, Washington, DC 20002; (202) 546-5400.

Visit NCCDPHP on the World Wide Web

Information about many of NCCDPHP's programs and activities is available via the World Wide Web by accessing CDC's home page at http://www.cdc.gov. Next click on the button for "About CDC," and then on the name, National Center for Chronic Disease Prevention and Health Promotion. New and updated postings are being added regularly to this site.

The cdnr *staff welcomes articles, comments, and questions from readers. These should be addressed to Managing Editor, Chronic Disease Notes & Reports, Centers for Disease Control and Prevention, Mail Stop K–11, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; (770) 488-5050; fax (770) 488-5095.*

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