

chronic disease notes & reports

National Center for Chronic Disease Prevention and Health Promotion

Volume 13 • Number 3 • Fall 2000

Special Focus: *Cancer*

Improving National Cancer Control

CDC supports a move to a comprehensive approach to prevent and control the nation's second leading cause of death.

CANCER, the second leading cause of death in the United States, represents major challenges and opportunities for public health agencies and organizations. One of every four deaths in the United States is from cancer; the overall costs of cancer are estimated at \$107 billion annually. Public health efforts to combat cancer are long-standing and well established. Cancer prevention and control programs have grown rapidly, sometimes at the cost of efficiency and effectiveness. As public health departments have struggled to reach the growing populations at risk for cancer with screening services, health promotion and education, and interventions designed to reduce or eliminate associated barriers, the infrastructure that supports such efforts has primarily gone unchanged. In most cases, programs for cancer have been driven by individual funding streams, resulting in duplication of effort, missed opportunities for prevention and control, and competition for limited resources. As a result, states and other stakeholders have come to believe that improved coordination is needed to maximize the resources available to support cancer programs and address the related risk factors. CDC is advocating and building the knowledge base for comprehensive cancer control (CCC), which it defines as “an integrated

and coordinated approach to reducing cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation, and palliation.”

Most cancer-related programs supported by CDC are categorical; that is, they address specific cancers or risk factors. The goal of comprehensive cancer control is to maximize categorical resources through improved coordination and integrated program planning. CDC provides technical assistance for planning and implementing CCC efforts and has developed tools and resources to support these efforts.

In a series of meetings begun in 1994, CDC worked with state cancer control staff and other stakeholders to develop and clarify the concept of a comprehensive approach. Through this process, described by Abed et al.,¹ partners suggested roles for CDC, including offering guidelines on how categorical dollars could be pooled for comprehensive programs; modeling the approach by adopting it at the federal level; funding state health agency demonstration projects; supporting training and technical assistance to help states make the transition to a comprehensive approach;

¹Comprehensive Cancer Control Initiative of the Centers for Disease Control and Prevention: an example of participatory innovation diffusion. *J Public Health Manag Pract* 2000; 6(2):79-92.

Inside

- Commentary 2
- National Breast and Cervical Cancer Early Detection Program ... 5
- Educating Americans About the Importance of Screening for Colorectal Cancer 7
- CDC Campaigns to Prevent Skin Cancer 10
- Improving Diagnoses of Oral Cancer 13
- Cancer Surveillance: An Essential National Strategy 17
- Prevention Research Centers Work to Reduce Cancer Rates 18
- cdnotes 21

U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES
Centers for Disease
Control and Prevention



Commentary Commentary Commentary

Toward Comprehensive Cancer Control

Nancy C. Lee, MD
*Director, Division of Cancer Prevention
and Control
National Center for Chronic Disease
Prevention and Health Promotion
Centers for Disease Control and Prevention*

MORE than 25 years ago, the United States launched a war against cancer, the nation's second leading cause of death. Progress against the disease has been difficult. However, in May 2000, the American Cancer Society (ACS), the National Cancer Institute (NCI), and the Centers for Disease Control and Prevention (CDC) announced that the rates of new cancer cases and deaths from cancer declined from 1990 to 1997 (Figure 1).

Despite this good news, the nation's cancer burden is still formidable. The ACS estimates that more than 1.2 million new cancer cases will be diagnosed in 2000, and this estimate does not include preinvasive cancers and approximately 1.3 million cases of nonmelanoma skin cancer. An estimated 552,200 Americans will die of cancer this year—more than 1,500 people every day. Furthermore, death rates from cancer are rising among some populations, and the documented decreases in cancer incidence vary by cancer site, gender, race, and ethnicity.

In recent years, CDC has worked with states, territories, tribal organizations, and local health agencies to increase the number and quality of cancer-related initiatives. CDC has developed programs to address breast, cervical, skin, colorectal, prostate, and oral cancers, as well as tobacco control, nutrition and physical activity, cancer surveillance, genetics, and environmental carcinogens. Coordination among these programs, however, is a challenge.

To increase efficiency, flexibility, and coordination, a comprehensive strategy is needed that addresses a broad range of cancer prevention activities: surveillance, research, evaluation, program development, public policy, health education and communication, and clinical services. CDC's efforts to address comprehensive cancer control—an integrated and coordinated approach to reducing cancer incidence, illness, and death through prevention, early detection, treatment, rehabilitation, and palliation—have evolved since the middle of this decade. We now have a flexible, multiphased framework for states to use

(<http://www.cdc.gov/cancer/ncccp/cccpdf/09Abed67-78.pdf>). The framework's four phases (Figure 2) reflect a cyclical process, which, once completed, begins anew, but with a greater degree of knowledge and understanding.

To build a coordinated focus for cancer efforts at the state level, CDC has established the National Comprehensive Cancer Control Program. Currently, five states (Colorado, Massachusetts, Michigan, North Carolina, and Texas) and the Northwest Portland Area Indian Health Board receive funds from CDC to implement comprehensive cancer control programs. Another six states (Arkansas, Illinois, Kansas, Kentucky, Maine, and Utah) are receiving technical support for comprehensive cancer control planning. Various tools and resources are also being developed to facilitate cancer control efforts.

Using a comprehensive strategy, health agencies can make better use of limited resources, share expertise, target at-risk populations, and achieve desired cancer prevention and control outcomes. For example, the Michigan Cancer Consortium Initiative (MCCI), established in 1987, involves more than 30 major stakeholders in the state that have cooperatively developed a strategic comprehensive cancer control action plan and have prioritized activities. This collective effort to pool resources in the state reduces duplicative activities and enhances what individual member organizations can accomplish. In the first year of CDC funding for comprehensive cancer control, the Michigan Department of Community Health awarded minigrants to member organizations to support development and implementation of their priority objectives.


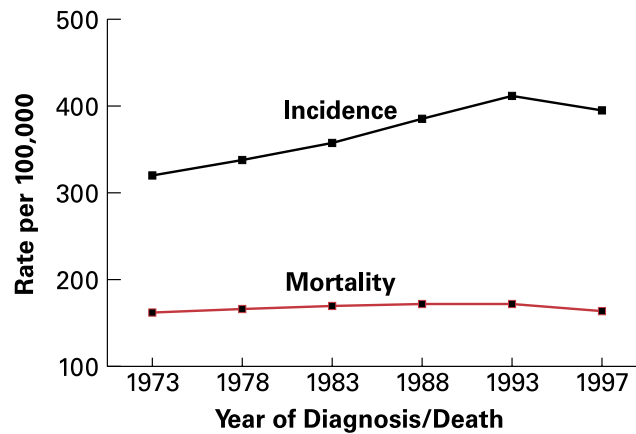
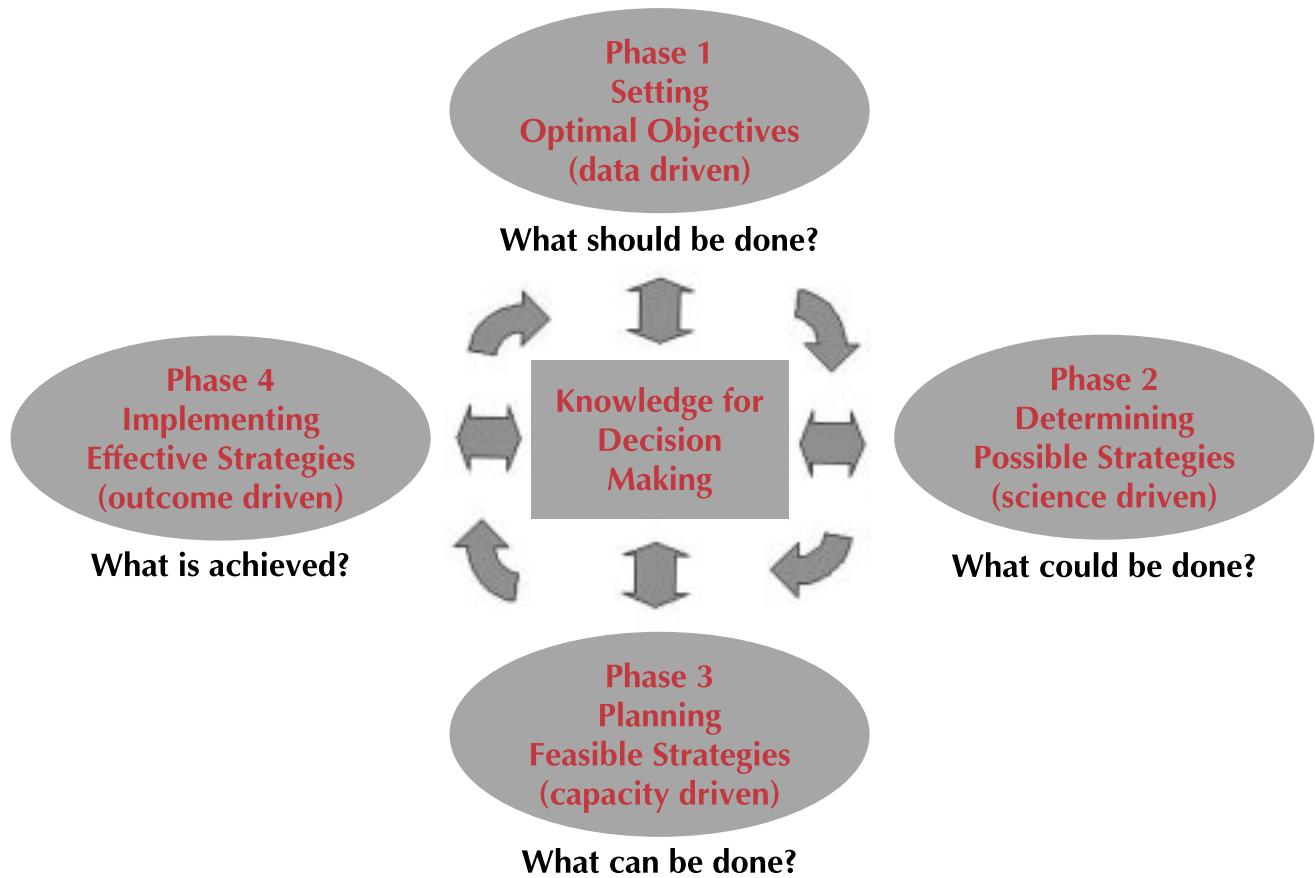
Admittedly, comprehensive cancer control is a complex organizational change that requires the commitment of many groups of stakeholders. The Division of Cancer Prevention and Control pledges to work with its many partners to effect this change and realize the benefits of comprehensive cancer control. 

Figure 1. Cancer Incidence and Mortality—United States, 1973–1997



Note: All cancers, incidence and mortality rates, for all races, both genders, with joinpoint analyses for 1973–1997. Rates are per 100,000 persons and age-adjusted to the 1970 U.S. standard million population. Source: Adapted from *Cancer* 2000;88(10):2406.

Figure 2. Framework for Comprehensive Cancer Prevention and Control



Source: Adapted from *J Public Health Manag Pract* 2000;6(2):67–78.

Improving National Cancer Control

► *CONTINUED FROM PAGE 1*

outlining best practices; and supporting policy and legislation to remove barriers to a comprehensive approach.

As a result of this process, CDC developed a comprehensive cancer control framework to be used by states. This framework is described in more detail by Abed et al.² To test the framework, CDC has worked with six states, providing extensive technical assistance and tools to support their CCC planning processes. These states are Arkansas, Illinois, Kansas, Kentucky, Maine, and Utah.

In addition, CDC recognized the need for formal relationships with states and tribes that had successfully completed cancer plans. Five states and one tribal organization were selected on the basis of their readiness to implement their cancer plans and address gaps that might impede that implementation. Colorado, Massachusetts, Michigan, North Carolina, the Northwest Portland Area Indian Health Board, and Texas were funded. In fiscal year (FY) 2000 CDC received its first congressional appropriation for CCC and is currently launching two special projects, one with the University of Miami in Miami, Florida, and the other with the M.D. Anderson Cancer Center in Houston, Texas.

“State health departments and their partners already have the expertise and many of the resources necessary to develop a comprehensive approach to cancer prevention and control, yet they often lack the resources, including a single dedicated person, to move the effort forward,” said Nancy C. Lee, MD, Director, Division of Cancer Prevention and Control, NCCDPHP. “Through CDC’s efforts, we have seen states effectively establish coalitions and partnerships, use data to inform decision making, apply research findings to the design and implementation of public health programs, and collaborate across organizational boundaries.”

Partnerships Leverage Resources

In addition to working with state and tribal health agencies, CDC has established successful partnerships with national organizations. The American Cancer Society (ACS), in recognizing the importance of the comprehensive cancer approach, has teamed with CDC to develop and pilot a forum series in FY 2000, “Working Together for Comprehensive Cancer Control: An Institute for State Leaders.” These forums provide a strategic opportunity for a group of highly skilled, influential individuals to collectively support an effort to implement comprehensive cancer control within their states. Combining CDC’s comprehensive approach with ACS’s regional focus, the 2-day institute is an interactive forum that will focus on state leaders, clearly defining and articulating a vision that maximizes existing resources and creates opportunities for new activities. Current plans include conducting two additional institutes during FY 2001. In addition to CDC and ACS, other national partner agencies and organizations convening these institutes include the American College of Surgeons, the Association of State and Territorial Directors of Chronic Disease Programs, the North American Association of Central Cancer Registries, the National Cancer Institute, and the Intercultural Cancer Council.

CDC hopes to broaden its relationship with other states, tribes, and territories considering comprehensive cancer efforts, as well as to solidify and expand existing relationships with national-level organizations and agencies interested in a comprehensive approach to cancer prevention and control. States, tribes, and territories that have been working toward greater integration and coordination of programs for some time are being urged to share their experiences. CDC is producing guidance and case study documents that draw from

► *CONTINUED, PAGE 9*

The National Breast and Cervical Cancer Early Detection Program: 10 Years of Progress

RECOGNIZING the value of screening and early detection, Congress passed the Breast and Cervical Cancer Mortality Prevention Act of 1990. This Act authorized critical breast and cervical cancer screening services for underserved women, including older women, women with low incomes, and women of racial and ethnic minority groups. It enabled CDC to establish the National Breast and Cervical Cancer Early Detection Program (NBCCEDP), which has provided cancer screening to more than 1.5 million underserved women during the past 10 years.

“The NBCCEDP was created to assist in the fight against these two cancers that together will claim more than 45,000 lives this year alone,” said Nancy C. Lee, MD, Director, Division of Cancer Prevention and Control, NCCDPHP, CDC. “Services are provided by caregivers who are sensitive to the needs of women who are uninsured, underinsured, or lack the financial resources to seek screening services. Participating physicians and other health care providers receive ongoing, specialized training. By providing information and support, as well as critical screening services, the NBCCEDP helps to remove the barriers that prevent women from getting screened.”

Scope

CDC begins its 10th year of the landmark NBCCEDP, supporting early detection programs in all 50 states, 6 U.S. territories, the District of Columbia, and 12 American Indian and Alaska Native organizations. Screening services provided by the NBCCEDP include a physical examination of the breasts, mammography, a pelvic examination, and Papanicolaou (Pap) test. The scope of the program has grown to

include 27,000 health professionals who provide screening and diagnostic services; 18,000 health educators and outreach workers who help bring the important screening message to women; and 7,000 members of a national network of supportive coalitions and partnerships with many private organizations who ensure quality management of the service.

Number of Screening Examinations Among NBCCEDP Participants, Fiscal Years 1991–1999

Year	Mammograms	Papanicolaou tests
1991–1992	26,890	45,382
1993	68,252	110,434
1994	97,454	137,506
1995	134,965	174,432
1996	183,715	214,566
1997	223,599	232,966
1998	218,387	223,364
1999*	203,945	215,034
Total	1,157,207	1,353,684
<i>Total examinations = 2,510,891</i>		

*Through September 1999.

Programs have paired with nontraditional partners to offer education and outreach in many community settings, including beauty salons, laundromats, and English as a Second Language classes. Diverse partners, including Native American tribal leaders, councils on aging, and African American church groups, have worked with the programs. Mobile mammography and the wide range of community partners have enabled the programs to offer screening to women on American Indian reservations and in rural and inner-city areas, as well as to women at worksites and shopping centers.

Ensuring that all women with abnormal screening results receive timely and

Percent Distribution of Screening Examinations Among NBCCEDP* Participants, by Race and Ethnicity, 1991–1999

Race and Ethnicity	Mammograms	Papanicolaou tests
White, non-Hispanic	52%	53%
Hispanic	20%	20%
Black, non-Hispanic	17%	15%
American Indian/ Alaska Native	6%	7%
Asian	3%	3%
Other/Unknown	2%	2%

*NBCCEDP includes 69 programs and has collaborated with more than 60 private, public, and federal organizations.

adequate diagnostic evaluation and treatment referrals is a crucial component of this national program. Thus, diagnostic services funded by the program include diagnostic mammography, breast ultrasound, breast biopsy, and fine needle aspiration for abnormal clinical breast examinations or mammography, and colposcopy, colposcopic-directed biopsy, and endocervical curettage for abnormal Pap tests. The Act that authorizes the NBCCEDP does not allow resources appropriated for the program to be used for treatment. In fulfilling their part of the partnership with the federal government, participating health agencies are required to identify and secure resources for diagnosis and treatment services that the program does not cover. The NBCCEDP-funded programs have subsequently expanded critical case management activities to assist clients in navigating the system and obtaining treatment services.

Cancer Statistics

Among American women, breast cancer is the most common nondermatologic cancer and is second only to lung cancer as a cause of cancer-related deaths. In 2000, it is estimated that 182,800 women will be diagnosed with breast cancer, and more than 41,000 women will die from the disease. In 2000, an estimated 12,800 women will be diagnosed with cervical

cancer, and approximately 4,600 women will die from the disease. A disproportionate number of deaths will occur among minorities and women of low income. Early detection is the key to increasing a woman's survival rate.

NBCCEPD Accomplishments

"We are proud of the program's current progress," said Dr. Lee. "As of September 1999, more than 2.5 million screening tests for breast and cervical cancer have been provided to women." Program accomplishments include the following:

- More than 1.1 million mammograms provided.
- More than 1.3 million Pap tests provided.
- More than 7,300 breast cancers diagnosed.
- More than 37,000 precancerous cervical lesions diagnosed.
- More than 600 cervical cancers diagnosed.

"Without this program many women would not have had the means to be screened, and their cancer would not have been detected and treated," said Dr. Lee.

Future Direction

"Although many successes and advances have been made as a result of this program, challenges still exist," said Dr. Lee. "With fiscal year 2000 Congressional appropriations of \$167 million, the program can serve only 12% to 15% of the eligible, uninsured population."

CDC will continue working with broad and diverse partners to increase access to breast and cervical cancer early detection and treatment services. Plans include developing effective strategies to improve rescreening rates among women enrolled in the program, creating effective education and outreach strategies for reaching women who have rarely or never been screened for either of these two types of cancer, and continuing to link with key

Educating Americans About the Importance of Screening for Colorectal Cancer

“Clearly, this is a cancer we can do something about. If more people aged 50 and older began having regular screening tests, we could see a dramatic decrease in the number of new cases and the number of deaths from this disease.”

—*CDC Director Jeffrey P. Koplan, MD, MPH*

CDC has targeted colorectal cancer screening as a vital tool in reducing illness and deaths from colorectal cancer (cancer of the colon and rectum). Colorectal cancer is the second leading cause of cancer-related death in the United States. Among cancers that kill both men and women, only lung cancer takes more lives. An estimated 56,300 Americans will die of colorectal cancer in 2000.

Screening Effective but Widely Underused

Many cases of colorectal cancer and at least 33% of deaths from colorectal cancer could be prevented by regular screening. Colorectal cancer can develop with few or no symptoms at first.

Polyps may be present in the colon or rectum for years before they become cancerous. “Because this cancer develops slowly, regular screening allows precancerous polyps to be detected and removed,” said Nancy C. Lee, MD, Director, Division of Cancer Prevention and Control, NCCDPHP, CDC.

Screening tests can detect colorectal cancer early, when treatment is most effective. When colorectal cancer is diagnosed before it has spread beyond the bowel wall, death rates are low: only about 10% of patients die within 5 years. However, only 37% of colorectal cancers are diagnosed at this stage. When the disease is diagnosed at an advanced stage, after it has spread to distant sites, death rates are high: about 92% of patients die within 5 years.

Four tests are currently used in screening for colorectal cancer:

- The fecal occult blood test (FOBT) is a chemical test for blood in a stool sample.
- Flexible sigmoidoscopy uses a hollow, lighted tube to visually inspect the wall of the rectum and the lower part of the colon.
- Colonoscopy provides a direct view of the interior wall of the entire colon and rectum.
- Double-contrast barium enema (DCBE) provides an x-ray image of the entire colon and rectum.

Strong scientific evidence supports the use of two of these tests—FOBT and flexible sigmoidoscopy—for reducing mortality from colorectal cancer. A study conducted in the United States showed a 33% reduction in colorectal cancer deaths among participants who had annual screening by FOBT.

Flexible sigmoidoscopy has been shown to detect about 65%–75% of polyps and 40%–65% of colorectal cancers. Studies examining the feasibility of colonoscopy and DCBE for screening are under way.

Acting on recent evidence that screening, with appropriate treatment and follow-up, reduces deaths from colorectal cancer, several scientific organizations now recommend regular screening of all average-risk adults aged 50 years or older, according to Laura Seeff, MD, Medical

Who Is at Risk?

- Men and women of all racial or ethnic groups are at risk.
- Most cases (93%) of colorectal cancer are diagnosed among people aged 50 and older.
- Having inflammatory bowel disease, a family or personal history of colorectal cancer, or colorectal polyps increases a person's risk for developing colorectal cancer.
- African Americans are more likely than whites to be diagnosed with this disease at a later stage and are more likely to die of it.

Epidemiologist, Division of Cancer Prevention and Control, NCCDPHP, CDC. Several sets of national guidelines recommend one or more of the following screening procedures: annual FOBT, flexible sigmoidoscopy every 5 years, total colon examination by colonoscopy every 10 years, and DCBE every 5–10 years.

“Adults at higher risk should generally begin screening at a younger age and should be screened more often, but recommendations vary depending on the risk,” Dr. Seeff said.

“Screening for colorectal cancer lags far behind screening for many other cancers, partly because the effectiveness of colorectal cancer screening has only recently been documented,” said Carolyn Beeker, PhD, Behavioral Scientist, Division of Cancer Prevention

and Control, NCCDPHP, CDC. “CDC research has also shown that lack of knowledge about the benefits of screening and dislike of the screening tests themselves may deter many people from being screened.”

A 1997 CDC survey found that only 41% of adults aged 50 and older reported having had FOBT or flexible sigmoidoscopy within the recommended time frame. “These findings underscore the need to increase awareness of the effectiveness of screening and to promote the widespread use of colorectal cancer screening at regular intervals,” Dr. Beeker said.

“Screen for Life” Developed to Educate Americans About Screening

On March 2, 1999, David Satcher, MD, MPH, Surgeon General and Assistant Secretary for Health, announced the launch of “Screen for Life,” a national colorectal cancer education campaign. Developed by CDC, the Health Care

Financing Administration (HCFA), and the National Cancer Institute (NCI), the “Screen for Life” campaign informs Americans aged 50 and older, the age-group most at risk for colorectal cancer, about the importance of screening tests for preventing the disease or detecting it early, before it has spread.

In developing the campaign, CDC researchers extensively reviewed communication and behavioral science literature and conducted formative research involving more than 40 focus groups of men and women aged 50 and older in cities across the country. According to Cynthia Jorgensen, PhD, Supervisory Health Communication Specialist, Division of Cancer Prevention and Control, NCCDPHP, CDC, the campaign includes public service announcements, brochures, fact sheets, and posters aimed at Americans aged 50 and older. The campaign also promotes the new Medicare coverage of colorectal cancer screening procedures and encourages all eligible beneficiaries to take advantage of screening coverage.

In year two of “Screen for Life,” the campaign continues to urge people older than age 50 to begin having regular screening tests for colorectal cancer, according to Cynthia Gelb, Health Communication Specialist, Division of Cancer Prevention and Control, NCCDPHP, CDC. “Our goal is to let people know that screening tests can make a difference by actually stopping colorectal cancer before it starts and by finding this cancer early, when treatment works best. ‘Screen for Life’ is intended to reach both the general public and health professionals with this important, potentially life-saving message.”

Other CDC Activities

CDC supports and conducts behavioral and epidemiologic research directed at better understanding barriers to screening and monitoring national trends. Current projects include the following:

“With Medicare and many insurance plans now helping to pay for colorectal cancer screening, we have a tremendous opportunity to save thousands of lives.”


— Donna E. Shalala,
Secretary of Health and
Human Services

- Supporting the Agency for Healthcare Research and Quality, the Harvard School of Public Health, and the RAND Corporation in developing and evaluating a colorectal cancer screening measure for potential inclusion in the Health Plan Employer Data and Information Set (HEDIS), a system of quality monitoring for national managed care plans.
- Conducting a study to define the current national capacity to provide colorectal cancer screening and follow-up examinations for Americans aged 50 and older.
- In collaboration with the Kaiser Permanente Medical Care Program of Northern California and the Imperial Cancer Research Fund in Great Britain, determining factors associated with patients' interest and participation in sigmoidoscopy screening.
- Working with the Alliance of Community Health Plans and the Kaiser Permanente Medical Care Program of Northern California to study potential complications associated with sigmoidoscopy.
- With NCI, conducting a national survey of primary care physicians to determine their knowledge and attitudes about colorectal cancer screening and their perceptions of screening barriers.

Partnerships Play an Important Role

CDC has provided national leadership in bringing together state health department personnel and other key partners to identify opportunities and develop strategies for colorectal cancer initiatives. CDC has also funded five states (Colorado, Massachusetts, Michigan, North Carolina, and Texas) and one tribal organization (Northwest Portland Area Health Board) to begin implementing comprehensive cancer control programs, which will include initiatives targeting colorectal cancer.

In addition, CDC and the ACS have created the National Colorectal Cancer Roundtable to strengthen the network of public and private organizations that support and encourage colorectal cancer screening. Partners include state health departments, professional organizations, medical societies, federal agencies, consumers, cancer survivors, managed care organizations, private industry, health educators, and the medical media.


Through these diverse activities, CDC hopes to educate Americans aged 50 years and older about the importance of regular screening for colorectal cancer. "We are committed to increasing awareness of this underrecognized cancer and the vital role of screening in eliminating much of the illness and death that it causes," said Dr. Lee. 

Improving National Cancer Control

► *CONTINUED FROM PAGE 4*

and highlight the successes and challenges in operationalizing this comprehensive approach and that include examples of what happens without coordination and integration. CDC will also provide regular updates to state, tribal, and territorial CCC contacts. For example, CDC will provide contacts with a "Dear Colleague" update, slated for release in late fall 2000, that will offer a more detailed overview of CDC's vision, efforts, and future plans for

CCC. As products and materials become available, they will be shared via the CDC Web site at <http://www.cdc.gov/cancer>.

For more information about CDC's National Comprehensive Cancer Control Program, call Steve Reynolds at 770/488-3075 or E-mail slreynolds@cdc.gov. 

Developing a framework for comprehensive cancer prevention and control in the United States: an initiative of the Centers for Disease Control and Prevention. *J Public Health Manag Pract* 2000; 6(2): 67-78.

CDC Campaigns to Prevent Skin Cancer

WHEN CDC kicked off its 5-year skin cancer prevention campaign called “Choose Your Cover” in 1998, the press conference, which featured Secretary of Health and Human Services Donna E. Shalala, was held on the Mall in Washington, D.C. The outdoor setting was used to more dramatically illustrate how people can protect themselves from the sun. Now, some 2 years later, this campaign continues to try to influence social norms related to sun protection and tanned skin, to cultivate critical partnerships, and to increase awareness, knowledge, and behaviors related to preventing skin cancer—the most common kind of cancer in the United States. According to the American Cancer Society, this year alone, about 1.3 million cases of highly curable basal cell or squamous cell cancers are expected to occur, and an estimated 47,700 people will be diagnosed with melanoma, the most serious form of skin cancer. CDC hopes that its skin cancer prevention activities increase the numbers of people who choose to protect themselves from the sun.

In 1999 and 2000, new campaign materials were distributed in time for Memorial Day weekend, the unofficial start of summer. The campaign, which relies on broadcast public service announcements (PSAs), print media, and the Internet as major outlets, delivers the key message that “even a few serious sunburns can increase your risk of skin cancer. The messages are designed to avoid preaching and to show that it’s OK to have fun in the sun as long as you still protect your skin,” said Charles Green, MFA, Division of Cancer Prevention and Control, NCCDPHP, a key staff member of CDC’s “Choose Your Cover” campaign.

CDC also issued news media materials that included a press kit containing a press release, fact sheets, and skin cancer questions and answers, and developed news

releases that provided television and radio stations with ready-made news stories. CDC mailed tailored campaign materials to broadcast meteorologists with suggestions on how to incorporate sun protection messages into their daily weather broadcasts.

The primary target audiences for the campaign are adolescents and young adults, who are among those least likely to protect themselves from the sun despite spending much time outdoors. “In the beginning, the campaign targeted 18- to 25-year-olds, and each following year, we build upon the previous messages to extend them to younger target audiences,” Mr. Green said. Before launching each year’s campaign, CDC staff have conducted a series of focus groups in cities across the United States to explore participants’ beliefs and behaviors, to test prevention messages and campaign materials, and to better focus resources and efforts.

Vital Partnerships Extend Reach, Scope of Prevention Efforts

CDC’s skin cancer prevention campaign has always been tailored to involve partners. State health departments are provided versions of each television and print ad with space to add their telephone numbers and other information. “In addition to adding local contact information to the PSAs, 14 states are working with local media and state tourism offices to help market these sun safety themes,” said Mr. Green.

The Illinois Department of Public Health, for example, provided “Choose Your Cover” materials and sunscreen samples at the 2000 National High School Rodeo Finals, July 24–30, 2000, in Springfield. “This is an excellent tie-in because the campaign’s target audience is the same as the audience at this outdoor

event and can build on a behavior—wearing a hat—that many participants already engage in,” said Mr. Green.

A popular component of the 2000 “Choose Your Cover” Campaign is a new campaign poster, “Sun Protection. Think in Synch.” The poster was developed jointly with members of the 2000 U.S. Synchronized Swimming Olympic Team, who competed at the Olympic Games in Sydney, Australia, in September.

Measuring Impact of Prevention Efforts Poses Special Challenges

As this 5-year campaign nears its midpoint, Cynthia M. Jorgensen, DrPH, Division of Cancer Prevention and Control, NCCDPHP, CDC, noted that CDC tracked television PSAs during 1998. About 300 major and independent TV networks, their affiliates, and cable stations aired the public service announcements (PSAs) for “Choose Your Cover” for a total of 26,000 times, equivalent to \$6 million in donated air time, and resulting in more than 644 million viewer impressions. During its second year, which ended in May 2000, the campaign has received slightly less exposure. “Evaluating the efforts of broad mass media campaigns is a challenge,” said Dr. Jorgensen. “Trying to separate campaign effects from other educational efforts requires significant resources and special methods that we do not have available. What we can do with our limited resources is measure changes in attitudes and behaviors over time and know that ‘Choose Your Cover’ was part of many educational efforts occurring at this time.”

One key effort to track these changes in attitudes and behaviors was the inclusion of a question on frequency of sunburns in the 1999 Behavioral Risk Factor Surveillance System, a state-based behavioral survey developed by CDC. In addition, several states used an optional

CDC skin cancer module containing more detailed questions or developed their own survey based on their individual climates and needs. “If we can continue these efforts, results from these systems will allow us to track changes over time,” said Dr. Jorgensen.

Patience, Persistence Are Vital for Long-Term Results

Because skin cancer takes a long time to develop, any reduction in disease and death resulting from public health efforts to encourage people to protect themselves from the sun will take years to have an effect

and even longer to measure. Dr. Jorgensen noted that in other countries, particularly Australia—which is considered to have one of the world’s best skin cancer prevention programs—efforts to establish sun-safe behaviors have taken more than 2 decades of persistent work.

The “Choose Your Cover” campaign is perhaps the best known element of CDC’s National Skin Cancer Prevention Education Program (NSCPEP), a national mass media program for the primary prevention of skin cancer that is targeted to parents, caregivers, and young children. Additional NSCPEP activities include epidemiological

“Choose Your Cover” Promotes Protection

Yearly campaign messages emphasize to young adults and adolescents that there are ways to reduce the harmful effects of ultraviolet (UV) rays, and highlight the fact that “even a few serious sunburns increase your risk of skin cancer.” The “Choose Your Cover” campaign promotes these five options:

Seek Shade under a tree, beach umbrella, tent, or other shelter.

Cover Up with a shirt, beach cover-up, pants, or other clothing to protect exposed skin.

Get A Hat with a wide brim to protect the head and neck.

Grab Shades to protect the tender skin around the eyes and reduce the risk of developing cataracts.

Rub It On by using sunscreen with a sun protection factor (SPF) of at least 15 and both UVA and UVB protection.

The CDC Web site at www.cdc.gov/ChooseYourCover/index.htm shows how these themes have been developed and how to download or order broadcast and print materials.

Building Critical Partnerships

In 1998, CDC convened two councils to address skin cancer protection. The Federal Council on Skin Cancer Prevention promotes sun-safe behaviors among federal agency employees, their families, and agency constituents. In addition, CDC convened the National Council on Skin Cancer Protection. This council's activities are based on the *Healthy People 2010* objective to increase to 60% the proportion of all people who limit sun exposure, use sunscreens and protective clothing when exposed to sunlight, and avoid exposure to artificial sources of UV light (e.g., sun lamps, tanning booths). The council's key activities are to

- Increase skin cancer awareness and prevention behaviors among all populations, with special emphasis on populations at high risk.
- Develop and support partnerships to extend and reinforce core messages for behavior change.
- Coordinate a public health response to nationwide efforts to reduce skin cancer incidence and deaths.
- Develop a national skin cancer prevention and education plan.

Most National Council members are interested in primary prevention of skin cancer through research, advocacy, education, and communication. Among the initial accomplishments of this consortium are developing core recommendations for preventing skin cancer, creating a sun safety video, and devising an education initiative matrix to help members locate resources more effectively. The major partners, which work closely with educational and medical institutions and organizations, include the following:

American Academy of Dermatology
American Academy of Family Physicians
American Academy of Pediatrics
American Association for Health Education
American Cancer Society
American Public Health Association
American School Health Association
Association of State and Territorial Directors of Chronic Disease Programs
Association of State and Territorial Directors of Health Promotion and Public Health Education
Centers for Disease Control and Prevention
Melanoma Research Foundation
National Association of Physicians for the Environment
National Association of School Nurses, Inc.
National Cancer Institute
National Institute of Arthritis and Musculoskeletal and Skin Diseases
National Medical Association
Skin Cancer Foundation
U.S. Environmental Protection Agency

For more information on the National Council on Skin Cancer Prevention, contact Mona Saraiya, MD, MPH, Medical Epidemiologist, Division of Cancer Prevention and Control, MS K-55, National Center for Chronic Disease Prevention and Health Promotion, CDC, 4770 Buford Highway, NE, Atlanta, GA 30341-3717; telephone 770/488-3034; fax 770/488-6939; E-mail msaraiya@cdc.gov.

Improving Diagnoses of Oral Cancer

ORAL and pharyngeal cancer—cancer of the lip, tongue, pharynx and mouth—affects approximately 30,000 people annually. This disease claims the lives of almost 8,000 people each year, or about one person every hour. Oral cancer surgery can be very disfiguring and thus psychologically traumatic in a society that places a high value on physical appearance. Treatment of this condition also often results in severe loss of oral function, and chronic discomfort including difficulty in chewing, swallowing, and speaking.

The major risk factors for oral and pharyngeal cancer are tobacco use and alcohol abuse, which together account for about 75% of all oral and pharyngeal cancer in the United States.¹ Risk also increases with greater consumption; heavy drinkers who smoke more than one pack of cigarettes a day are 24 times more likely to develop oral cancer than people who do not use either substance. Some research also has implicated some human papilloma (HPV) and herpes simplex viruses in diagnosed oral cancer.

Men's risk of being diagnosed with oral or pharyngeal cancer is twice that of women, and African American men suffer disproportionately from this disease. Whereas oral cancer is the sixth leading cancer in U.S. men and the fourteenth most common cancer in U.S. women, it is the fourth leading cancer in African American men, who are also more likely to be diagnosed at an earlier age and at a more advanced stage and are more likely to die of the disease.² Ninety-five percent of oral cancer cases are diagnosed in people older than 45 years and the median age of diagnosis is 64 years.

Compared with other cancers, oral and pharyngeal cancer has one of the poorest 5-year survival rates: only 52% of people diagnosed with oral cancer survive 5 years. Early detection of oral cancer increases the chance that a person will be alive 5 years

after initial diagnosis; the 5-year survival rate is 81% for those diagnosed with early-stage oral cancer but only 22% for persons diagnosed with advanced stage cancer.

However, only 35% of oral cancer is detected at the earliest stage. Again, African American men are at a disadvantage—only 19% of African American men diagnosed with oral and pharyngeal cancer are identified at Stage I, compared with 38% of white men.³ African American men have a 5-year survival rate of 34%, compared with the 56% survival rate for white men.

The delay in diagnosis may be partly due to the public's overall lack of knowledge of the signs and symptoms of oral cancer and to the need for an increase in annual screening exams for oral cancer, particularly for those at higher risk. In one study, only 14% of U.S. adults aged 40 years or older reported having had an oral cancer examination within the past 12 months. Both

Warning Signs of Oral Cancer

- A sore in the mouth that does not heal (most common symptom)
- A white or red patch on the gums, tongue, tonsil, or lining of the mouth that will not go away
- A lump or thickening in the cheek
- A sore throat or a feeling that something is caught in the throat
- Difficulty chewing or swallowing
- Difficulty moving the jaw or tongue
- Numbness of the tongue or other area of the mouth
- Swelling of the jaw that causes dentures to fit poorly or become uncomfortable
- Loosening of the teeth or pain around the teeth or jaw
- Voice changes
- A lump or mass in the neck
- Weight loss

¹Blot, W.J., et al. Smoking and drinking in relation to oral and pharyngeal cancers. *Cancer Research*, 48(11):3282-7, 1988.

²U.S. Department of Health and Human Services. *Healthy people 2010: national health promotion and disease prevention objectives. Full report, with commentary.* Washington, D.C.: January 2000.

³Ries, L.A., et al. *SEER cancer statistics review, 1973-1996.* Bethesda, MD: National Cancer Institute, 1999.

the National Cancer Institute and the National Institute of Dental and Craniofacial Research support efforts to promote the early detection of oral cancer during routine dental examinations, and the *Guide to Clinical Preventive Services* advises that a complete oral cavity exam should be part of routine preventive care for persons with significant risk for oral cancer, such as those with a history of smoking and alcohol use.

A recent study found that not all dentists thoroughly screen patients for risk factors. The National Oral Cancer Survey of Dentists found that some dentists had misinformation about risk factors. Although nearly all dentists asked patients about their cancer history and current tobacco use, fewer asked about types and amounts of products used, and only half asked about past alcohol use. "We need to know more about designing effective intervention approaches to encourage providers to screen more frequently for early signs of oral cancer and teach patients to recognize the symptoms of oral cancer and request oral cancer examinations," said Alice Horowitz, PhD, senior scientist at the National Institute of Dental and Craniofacial Research and one of the researchers who developed the survey.

"Early detection is a major issue within the dental and medical profession," stated Sol Silverman, Jr., DDS, Professor and Chairman, Department of Oral Medicine, University of California, San Francisco, who noted that little improvement has been made during the past 2 decades in improving early detection of oral cancer before it spreads beyond the primary site. "More information on oral cancer needs to be integrated throughout the various courses provided in schools of dentistry and dental hygiene, and medical and nursing schools. Early detection should be emphasized. Patient histories should include tobacco and alcohol use, and patients should receive tobacco cessation education," he continued. Continuing education courses for dentists and other

health professionals are also important to reinforce knowledge about risk factors for oral cancer, review screening techniques, and provide information on the latest medical developments in detection and treatment.

"For most people who develop oral cancer, the results are devastating," according to U.S. Assistant Surgeon General William Maas, DDS, MPH, Director, Division of Oral Health, NCCDPHP, CDC. "We need to educate the public about the risk factors and warning signs. We also need to work with physicians and dental professionals to encourage screening of patients at high risk, such as those older than age 40 years who have risk factors such as tobacco and heavy alcohol use. These efforts can facilitate early detection and management of suspicious lesions."

Educating About Dangers of Spit Tobacco and Oral Cancer

For years, chew, or spit tobacco, has been associated with glamorous sports, such as baseball, horse racing, and auto racing. It was common to see athletes chewing and spitting during televised games. This situation is changing, largely because of the efforts of the National Spit Tobacco Education Program (NSTEP), an initiative of Oral Health America that is supported by CDC and The Robert Wood Johnson Foundation. Major collaborators include Major League Baseball, American Baseball Coaches Association, and Little League Baseball. Since its launch in 1994, NSTEP has been promoting oral health and educating young people, parents, and coaches about oral cancer prevention and the dangers of smokeless tobacco.

Although a "smokeless" substance might seem less harmful than a "smoked" tobacco product, this presumption is far from true. Each year, 10–16 million Americans use smokeless tobacco; their risk for some types of cancer can be as much as 50 times greater than that of nontobacco users. One dip, or chew,

contains five times as much nicotine as one cigarette and at least 2,500 known chemicals, including 28 known carcinogens such as formaldehyde, nickel, polonium-210, and nitrosamines. The highest rates of smokeless tobacco use are found in the South. According to CDC's Youth Risk Behavioral Survey (YRBS, 1998), about 13% of male high school students currently use chewing tobacco or snuff.

"Many people don't know that spit tobacco is not a safe alternative to smoking cigarettes," said Paul Turner, director of coalition development for NSTEP, which receives support from CDC's Division of Oral Health and the Office on Smoking and Health. "At NSTEP, we are constantly working to develop new grassroots community coalitions that use ballpark events as a nucleus for community health education." NSTEP currently has active coalitions in eight states, and two additional states are poised to implement NSTEP programs. NSTEP coalitions include representatives from health departments, dental professional societies, universities and schools, athletes, parents, coaches, tobacco control groups, and others.

One of the major successes of this program thus far is the banning of free spit tobacco from ballparks, where formerly it was readily available in the dugouts for players' use. Another accomplishment is that NSTEP staff have worked with television networks so that cameramen don't focus on players who are chewing smokeless tobacco during televised games. In addition, since 1995, Oral Health America has secured more than \$100 million in donated air time for NSTEP PSAs featuring celebrities such as Garth Brooks.

A variety of educational materials are available from NSTEP for use in community health education programs. More information about NSTEP can be obtained from the national program office at 770/753-0952 or by visiting NSTEP's Web page at www.nstep.org.

State Innovations in Oral Cancer

One of the 10 strategies recommended by participants of the National Strategic Planning Conference on Preventing and Controlling Oral and Pharyngeal Cancer, convened in 1996 by CDC with cosponsorship from the National Institute of Dental Research and the American Dental Association, was to develop statewide models for educating all relevant groups about oral cancer. Two states, Maryland and Illinois, have made strides in assessing local needs related to oral cancer prevention, detection, and control. In Maryland, as part of preliminary research to develop a comprehensive statewide education program on oral cancer, a survey of various public health professionals was conducted to determine their knowledge and screening behaviors regarding oral cancer. Focus groups of health professionals and the general public also were conducted to determine how people receive their information on oral cancer and oral health.

"Our survey found that only 23% of the public surveyed in Maryland could correctly identify one early sign of oral cancer, and 39% responded that they did not know any signs," stated Harold S. Goodman, DMD, MPH, State Dental Director. Beginning in fall 2001, the Maryland Department of Health and Mental Hygiene's Office of Oral Health, with assistance from the University of Maryland School of Dentistry, hopes to pilot test and evaluate an oral cancer prevention and early detection intervention throughout the state, targeting dental and nondental providers and consumers.

Components of a Clinical Examination for Oral Cancer

1. Check lymph nodes in the neck and under the lower jaw
2. Check cheeks and lips
3. Check gums
4. Pull tongue forward
5. Check palate
6. Check back of throat
7. Check floor of mouth

The office has also developed and will distribute a wallet card that lists the eight steps of an oral cancer examination to be distributed through governmental agency and church sites (see “Components of a Clinical Examination for Oral Cancer,” p. 15).

Illinois’ approach has been to incorporate oral cancer into the state’s comprehensive cancer control program. “Last year, CDC selected Illinois as one of six states to receive technical assistance in developing a comprehensive cancer program,” stated Lewis Lampiris, DDS, MPH, Chief of the Division of Oral Health, Illinois Department of Public Health. As part of the process, the state formed the Illinois Partnership for Cancer Prevention and Control, and Dr. Lampiris’ division developed a position paper on oral cancer that focused on identifying and promoting policies relevant to prevention, early detection, and treatment. This paper convinced state officials to integrate oral cancer into its state plan, “Moving Forward With Cancer Prevention and Control: An Illinois Framework for Action.” According to Dr. Lampiris, this “gives us a lot of flexibility in addressing oral cancer within the broader context of comprehensive cancer prevention and control.” In 2001, in partnership with the state’s schools of dentistry and dental hygiene, the division plans to conduct a statewide assessment of the knowledge, attitudes, and screening activities of health professionals related to oral cancer, implement improvements in surveillance, and develop education programs for health care workers.

Improved Surveillance

To develop more effective approaches to preventing oral cancer, public health professionals need a better understanding of groups at high risk for oral cancer, as well as of the health settings in which diagnoses at specific stages are most frequently made. The oral cavity is one of the eight major cancer sites formally

endorsed for surveillance by the Council of State and Territorial Epidemiologists, a group that advises CDC and other federal and state agencies about information that should be collected in the National Public Health Surveillance System.

Although cancer incidence data have been collected since the early 1970s by the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) program, the data were collected from only five states and six metropolitan areas. Since 1994, funds have been provided to states through CDC’s National Program of Cancer Registries (NPCR) to enhance cancer surveillance. Currently, 45 states, the District of Columbia, and three territories participate in the NPCR, and, as a result, cancer incidence data now are available for most states. Currently, data are compiled and made available annually by the North American Association of Central Cancer Registries (www.naaccr.org). When analyzed, these data will provide more information about stage-specific cancer incidence.

According to Dolores Malvitz, Division of Oral Health, NCCDPHP, CDC, exploring and analyzing these and other newly available data will provide a more complete picture of oral cancer that can be used by states and other organizations to improve interventions. “We need to learn more about the patterns of oral cancer, such as which health professional—dentist or physician or other—most frequently makes the initial diagnosis,” she said. “These additional state data will help us characterize more completely the nature and extent of oral cancer as a health problem.”

More information on oral and pharyngeal cancer can be found in *Oral Health in America: A Report of the Surgeon General*, as well as at the following Web sites:

CDC: www.cdc.gov/nccdphp/oh/oh-home.htm

NIDCR: www.nidcr.nih.gov/Spectrum/NIDCR3/3menu.htm

► CONTINUED, PAGE 24

Cancer Surveillance: An Essential National Strategy

CANCER surveillance serves as the foundation for a national, comprehensive strategy to reduce illness and death from cancer. According to James S. Marks, MD, MPH, Director, National Center for Chronic Disease Prevention and Health Promotion, “Data from population-based central cancer registries are essential to all cancer control activities in the United States. Cancer registry data are used for planning and evaluating cancer control interventions, monitoring cancer trends, conducting research, allocating health resources, and responding to concerns from citizens about the occurrence of cancer in their communities. Equipped with complete, timely, and high quality cancer surveillance data, public health professionals at the national, state, and local levels can better understand and tackle the cancer burden.”

Despite the critical role registries can play in helping direct cancer prevention efforts, 10 states had no registry in the early 1990s. The remaining 40 states had registries operating at some level, but many lacked the financial support and personnel to gather complete, timely, and accurate data on their population and to ensure that the data collected met minimum standards of quality. Responding to the needs of the states, Congress established the National Program of Cancer Registries (NPCR) in 1992. Administered by CDC, the NPCR provides support to 45 states, 3 territories, and the District of Columbia to either enhance existing state cancer registries or to implement registries where a limited or no statewide registry previously existed. The NPCR enables reporting of cancer data by age, sex, race/ethnicity, and geographic region—within a state, between states, and between regions.

States are using cancer registry data to support research and cancer control program activities for enhancing public


health. For example, the New York State Registry undertook a long-term project, the Cancer Surveillance Improvement Initiative, to conduct surveillance of cancer and cancer risk factors at the local level throughout the state. Data from the Registry, in conjunction with state-of-the-art mapping techniques, are used to produce county and zip code-level maps of cancer incidence for use in surveillance, as well as for program planning. Examination of cancer risk factors and maps showing the distribution of risk factors throughout the state will follow.

According to Thomas C. Tucker, MPH, Associate Director of the Kentucky Cancer Registry, “The unique role of the central cancer registry is to be the eyes through which cancer control problems can be seen.” Kentucky was able to save thousands of lives and millions of dollars with its cancer registry. In the early 1990s, 35% of Kentucky women diagnosed with breast cancer had advanced (late-stage) disease, for which the survival rate is low. Registry data were used to identify areas of the state that had high rates of late-stage and low rates of early-stage breast cancer. In 1994, Kentucky received CDC funding to enhance registry and breast and cervical cancer activities, enabling the state to expand mammography outreach activities in these communities. In 1996, the percentage of Kentucky women diagnosed with late-stage breast cancer had declined to 30%. In addition to the potential lives saved by detecting these cancers earlier, Kentucky estimates that it has saved more than \$4.7 million in treatment costs.

To maximize the benefits of state-based cancer registries, CDC is implementing the NPCR-Cancer Surveillance System for receiving, assessing, enhancing, aggregating, and disseminating data from NPCR programs. This system of cancer statistics will provide valuable feedback to help state

registries improve the quality and usefulness of their data, and the system could support important data linkages with other databases. Availability of data on a regional and national level will also facilitate studies of rare cancers, cancer among children, cancer among racial and ethnic minority

populations, and occupation-related cancer. The first official "Call for Data" for the NPCR-Cancer Surveillance System is scheduled for January 2001.

For more information on the NPCR, please visit the CDC Web site: www.cdc.gov/cancer/npcr/index.htm 

Prevention Research Centers Work to Reduce Cancer Rates

CDC's Health Promotion and Disease Prevention Research Centers (PRC) Program gained new impetus in fiscal year 1998 with a 5-year funding authorization from Congress. Today, valuable community-based prevention research continues at 23 academic institutions, each focusing on a distinct core theme, to identify health needs in communities, select and carry out strategies for disease prevention, and encourage healthy living.

"CDC administers the cooperative agreements that guide the program, and the academic centers...conduct the research and interventions," wrote James S. Marks, MD, MPH, Director, NCCDPHP, CDC, in a special issue of *Chronic Disease Notes and Reports* (Volume 12, Number 1, Winter 1999) dedicated to PRC Program activities. "But conducting research is not the point of this endeavor; rather, delivering real, workable solutions to help people in communities improve their health and well-being is the crucial element of this partnership."

Cancer prevention is an important focus at many of these research centers. For example, PRCs at West Virginia University and the University of Illinois at Chicago conduct research to determine better ways of helping people make healthy lifestyle choices and reduce their chances of developing cancer and other chronic diseases.

Helping Young People Stop Smoking

Smoking is known to be a major risk factor for cancer. West Virginia has one of the highest overall tobacco-use rates in the United States, and about 42% of the state's high school students are smokers. Many of these young people want to quit smoking, but few programs are known to be effective for young people. To meet this demand, researchers at West Virginia University's PRC, led by its director, Geri Dino, PhD, and Kimberly Horn, EdD, MSW, have developed the N-O-T (Not on Tobacco) program in collaboration with the American Lung Association. Other partners included the West Virginia Bureau for Public Health and state and local departments of education in both West Virginia and Florida.

N-O-T is a school-based program for 14- to 19-year-old smokers who are ready to quit. Girls and boys are placed into separate groups that meet privately with same-sex facilitators for 10 one-hour sessions; these are followed by four "booster" sessions. N-O-T takes a total health approach to teen smoking, emphasizing daily life skills such as stress management, eating right, and getting plenty of exercise along with quitting or cutting back on smoking. The program fosters peer support and offers awards and incentives to both student participants and

facilitators. It also includes a protocol for referral to mental health services when appropriate.

A series of evaluation studies among N-O-T participants in West Virginia, Florida, and Ohio found self-reported quit rates ranging from 20% to 30%. In one recent Florida study, the chemically validated quit rate almost 6 months after the program ended was about 20%. The smoking-reduction rates after 6 months also were encouraging—among those teens who continued to smoke, more than 65% reported they had reduced the number of cigarettes they smoked on weekdays, and 75% said they smoked fewer cigarettes on weekends.

“We still consider N-O-T to be in its evaluative stages,” said Dr. Horn, Assistant Professor of Community Medicine and Director, Office of Drug Abuse Intervention Studies. “Certainly, the quit and reduction rates reported to date are favorable, but we have much to learn about the program and its impact on smoking and other health behaviors. Early studies have shown that N-O-T has a positive impact in several areas, such as school performance and attendance, social and coping skills, and general health. We are now conducting studies to systematically examine these types of outcomes. We also intend to examine the effectiveness of the program in various settings and with diverse young people who are at high risk of taking up smoking.”

“The entire process of developing and implementing N-O-T has been collaborative and exciting,” she continued. “It is because of our partnerships with teens, teachers, nurses, counselors, other practitioners across the United States, and the American Lung Association that N-O-T is showing promise for helping teens quit smoking.”

After seeing such positive results from early evaluations, the American Lung Association adopted the N-O-T program for use with teens in this country and around the world. During the 1998–1999

school year, 180 facilitators provided the N-O-T program to more than 1,200 students in 67 schools. For additional information about N-O-T, visit the association’s Web site at www.lungusa.org/tobacco/not.html or call 800/LUNG-USA (586-4872).

Cancer Prevention for Women

Under the leadership of principal investigator Clara Manfredi, PhD, prevention researchers at the University of Illinois at Chicago (UIC) have assisted the Lake County Health Department (LCHD) in developing and carrying out one of the CDC-funded Illinois Breast and Cervical Cancer Control Program activities. As part of this project, the UIC researchers provided a chart reminder system to three LCHD public health clinics and instructed clinic personnel in its use. The purpose of this activity was not to assess the effectiveness of the chart reminder system per se but rather to provide technical assistance to LCHD. However, the combined effect of the chart reminder system, the availability of the Illinois Breast and Cervical Cancer Prevention Program funds for screening, and related professional education efforts dramatically increased breast and cervical cancer screening rates among eligible clinic patients: the proportion of women aged 50 years and older who received a mammogram in these clinics increased from 19% to 53% during the previous year, and the proportion who received a Papanicolaou (Pap) test increased from 17% to 65%.

UIC researchers led by Dr. Manfredi also developed a multifaceted smoking cessation program for women of childbearing age and evaluated it in 12 public health clinics in Chicago. During the study, clinic personnel were trained to carry out this motivational program as part of routine services. Surveys conducted 1 month after the intervention showed that it was successful in helping women stop smoking, increasing abstinence rates from


7.5% to 14.5%. The program also significantly improved seven indicators of motivation and readiness to quit among the remaining smokers.

At the end of the experimental program evaluation, CDC funds allowed researchers to extend the program to the clinics that had served as controls, to study program maintenance at clinics during the year following the end of the experimental evaluation, and to expand the program to other clinics and services. Nine of eleven participating clinics in the original study continued the program on their own for an additional year, and the subsequent evaluation showed that it resulted in more frequent patient counseling by providers and significantly improved abstinence, motivation, and readiness to quit among all smokers seen in the clinics.

“These projects showed remarkable, sustainable success with two populations

that are difficult to reach and change—providers and the clinic populations they serve,” said Professor Susan R. Levy, PhD, Director, University of Illinois at Chicago Prevention Research Center. “We hope that more sites adopt the programs because we now know they work and can help more people live healthier lives.”

For additional information on the University of Illinois projects, contact Dr. Manfredi by E-mail at clara@uic.edu.


“The programs described in this article are very good examples of the important role that PRCs play in bridging prevention research and public health practice,” said Lynda Doll, PhD, director of CDC’s PRC Program. “Their research findings are not only described in the scientific literature, but are actually being used in public health programs to make a difference in the health of adolescents and women in their communities.” 

CDC Campaigns to Prevent Skin Cancer

► *CONTINUED FROM PAGE 11*

research and surveillance support for coalitions and intervention demonstration projects. Some of these skin cancer prevention projects include the National Council on Skin Cancer Prevention (see “Building Critical Partnerships, p. 12); Pool Cool, an intervention provided at public swimming sites to promote skin cancer prevention among parents, lifeguards, pool managers, and children aged 5–10 years; and Sunwise Stampede, a 3-year research project that encourages children and their parents visiting the San Diego Zoo to protect

themselves from ultraviolet radiation by wearing sunscreen and wide-brimmed hats and by making use of shade.

For more information about “Choose Your Cover,” contact Charles Green, MFA, Health Communication Specialist, Division of Cancer Prevention and Control, MS K-55, National Center for Chronic Disease Prevention and Health Promotion, CDC, 4770 Buford Highway, NE, Atlanta, GA 30341-3717; telephone 770/488-3020; fax 770/488-3040; E-mail cgreen1@cdc.gov. 

cdnotes cdnotes cdnotes cdnotes cdnotes cdnotes**Conferences****15th National Conference on Chronic Disease Prevention and Control**

The National Center for Chronic Disease Prevention and Health Promotion, CDC, will host its 15th annual conference, "Living Healthier, Living Longer: The Will and the Way," November 29–December 1, 2000, at the Washington Hilton and Towers in Washington, D.C. Participants will learn about emerging chronic disease issues, data applications, and intervention research; network with health and other professionals; develop new working relationships; and discover what others are doing in communications, training policy, and partnership development.

For more information, visit www.cdc.gov/nccdphp/conference or contact Estella Lazenby at 301/588-6000, E-mail elazenby@kevr.com or Dale Wilson at 770/488-5885, E-mail dnw3@cdc.gov.

Sixth Annual Maternal and Child Health Epidemiology Conference

The 2000 Maternal and Child Health Epidemiology Conference will be held December 12–13, 2000, in Atlanta, Georgia. The theme of this year's conference is "Reducing Disparities in Maternal and Child Health Outcomes." Conference sessions will highlight effective lessons using maternal and child health data to reduce disparities among various racial, ethnic, socioeconomic, and geographic populations in the United States. For more information, visit www.uic.edu/sph/dataskills/michep99 or contact Jessie Richardson at 770/488-5187, E-mail jvr4@cdc.gov.

National Conference on Health Promotion and Health Education

You are invited to join public health professionals from across the nation and from the Centers for Disease Control and Prevention for the National Conference on Health Promotion and Health Education to be held in Atlanta, Georgia, April 25–27, 2001, at the Crown Plaza Ravinia. For more information, contact Rose Marie Matulionis, Executive Director, Association of State and Territorial Directors of Health Promotion and Public Health Education, at 202/312-6460 or fax 202/336-6012.

CDC Diabetes Translation Conference 2001

CDC's Division of Diabetes Translation (DDT) will be hosting its annual conference April 30–May 3, 2001, in Seattle, Washington. The conference will bring together a wide community of local, state, federal, territorial, and private-sector diabetes partners to explore science, policy, and education as they relate to diabetes in every life stage. For more information, contact Norma Loner at 770/488-5376, E-mail nbl1@cdc.gov, or visit DDT's Web site at www.cdc.gov/diabetes.

National Oral Health Care Conference

"Dental Public Health: Enhancing Health, Access, and Partnerships" will be the theme of the next National Oral Health Conference to be held April 30–May 2, 2001, at the Marriott Hotel Downtown in Portland, Oregon. The program will focus on Medicaid and access issues, national oral health initiatives, health promotion and disease prevention, utilization cost-effectiveness and benefits of programs, education of health personnel, and innovative program evaluation. The meeting is sponsored by the Association of State and Territorial Dental Directors, the American Association of Public Health Dentistry, CDC, the Health Care Financing Administration, and the Health Resources and Services Administration. More information about the conference is available at the following Web sites: www.astdd.org and www.aaphd.org.

2001 Cancer Conference

CDC's 2001 Cancer Conference will be held September 5–7, 2001, in Atlanta, Georgia, at the Marriott Marquis Hotel. The theme is "Using Science to Build Comprehensive Cancer Programs: A 2001 Odyssey." Short courses will be held September 4 as part of the preconference activities. To be added to the mailing list for the conference, write Laura Shelton at PSA, 2957 Clairmont Road, Suite 480, Atlanta, GA 30349, E-mail l_shelton@psava.com or

cdnotes cdnotes cdnotes cdnotes cdnotes cdnotes

call 404/633-6869, extension 214. Information regarding the conference will be posted on CDC's Cancer Prevention and Control Web site at www.cdc.gov/cancer.

Communications

DCPC Video on Prostate Cancer Screening

CDC's Division of Cancer Prevention and Control is currently developing an educational prostate cancer video (7–10 minutes) that targets men who are considering being screened for prostate cancer—whether it is their first time or their regular screening. The video is intended to stimulate thought and dialogue about prostate cancer screening by providing the basic facts and resources—not to tell men whether to be screened. CDC will test and refine the video content and shoot the video in the next several months. For more information, contact Charles L. Green at 770/488-3020, E-mail clg8@cdc.gov.

Second Annual National Colorectal Cancer Awareness Month—March 2001

Colorectal cancer is the second leading cancer killer in the United States. The risk of developing this disease increases with age; 93% of cases occur in people aged 50 years or older. However, most Americans aged 50 or older are not screened for colorectal cancer. National Colorectal Cancer Awareness Month was established to increase awareness and encourage prevention and early detection through screening.

March 2000 was the first National Colorectal Cancer Awareness Month, and 34 leading organizations, including CDC, joined as collaborating partners. The Cancer Research Foundation of America (CRFA) spearheaded the drive to have the month of March officially designated as National Colorectal Cancer Awareness Month. To learn more about CRFA and future planning for National Colorectal Cancer Awareness Month 2001, call 1-877-35-COLON or visit www.preventcancer.org.

Information Sources

Surgeon General's Report on Oral Health

Oral Health in America: A Report of the Surgeon General, released in June 2000, identifies the essential role of oral health in overall health and well-being. Since 1950, many Americans have benefitted from safe and effective means to maintain oral health including community water fluoridation and tooth sealants. However, disparities in oral health status and access to care issues continue to affect many persons, including those with low income, members of racial/ethnic minority groups, and those who are disabled or medically compromised. The report recommends increasing awareness of the importance of oral health as part of general health; accelerating the building of the science base and applying it more effectively to improve oral health; strengthening the local, state, and federal capacity to perform core public health functions; removing barriers between people and receipt of oral health services; and using public–private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases. A copy of the report is available at www.surgeongeneral.gov/library/oralhealth.

Updated Cancer Legislation Web Site and Database

CDC's Web site on state and Congressional legislation related to cancer prevention and control has been redesigned and updated. It is now divided into three sections: searchable cancer legislation database, reports and analyses, and links to other legislative sites. Three additions have been made to the site: (1) legislation related to the privacy of medical records, (2) "Highlights from 1999: Enacted Federal Bills and Appropriations Language Related to CDC's Cancer and Early Detection Activities," and (3) "The National Breast and Cervical Cancer Early Detection Program: Authorizing and Related Legislation." For more information, visit www.cdc.gov/cancer/legislat.htm.

cdnotes cdnotes cdnotes cdnotes cdnotes cdnotes

Chronic Disease Prevention Databases Offered on CD-ROM

If you need information about health promotion and disease prevention research, resources, and programs, NCCDPHP's recently updated Chronic Disease Prevention (CDP) File CD-ROM may be what you're looking for. CDP File contains nine databases and the Chronic Disease Prevention Directory, a listing of contacts in key areas of public health. NCCDPHP distributes each update free of charge (along with a Thesaurus and User's Guide) to a site in each state. CDP File can also be purchased from the Government Printing Office (202/512-1800) at an annual subscription cost of \$104 for four quarterly updates. To learn who in your state receives CDP File or for more information, contact Bill Thomas at 770/488-5080, E-mail wthomas@cdc.gov.


NCCDHP News

10th Anniversary of CDC's National Breast and Cervical Cancer Early Detection Program

In 2000, CDC recognized the 10th anniversary of its National Breast and Cervical Cancer Early Detection Program (NBCCEDP). The theme for the program's anniversary was "A Decade of Change: A Future of Hope." Partnerships, policy changes, science, and genuine hard work have helped guide the program during the past 10 years. Through the NBCCEDP, more than 1 million women across this country have received life-saving screening services, and more than 2.5 million breast and cervical cancer screenings have been provided since the program's inception.

As part of the celebration, CDC issued national public service announcements featuring Surgeon General David Satcher, released new program screening data, conducted communication outreach activities with Congress, and premiered a new program video and speaker's kit. To learn more about the program, please visit www.cdc.gov/cancer/nbccedp/anniversary.htm.


NCCDPHP Employees Recognized at 48th Annual CDC and ATSDR Honor Awards Ceremony

NCCDPHP employees received numerous CDC and ATSDR Honor Awards at the annual ceremony on June 28, 2000. In addition to 10 other individual winners in various award categories, Thomas E. Starcher received the William C. Watson, Jr. Medal of Excellence for his service as a dedicated and innovative manager and leader who has made key contributions to Public Health Service programs and initiatives. Group award winners include the National Diabetes Education Program and the Type 2 Diabetes Mellitus in Children Research Team. 

The National Breast and Cervical Cancer Early Detection Program

► *CONTINUED FROM PAGE 6*

partners in the prevention and early detection of breast and cervical cancer.

Visit CDC's Web site at www.cdc.gov/cancer/nbccedp/about.htm for more information about the program and breast and cervical cancer, to order a complimentary NBCCEDP Anniversary video, or to obtain print ads that can be placed in local newspapers or other publications. 

Chronic Disease Notes & Reports is published by the National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia. The contents are in the public domain.

Director, Centers for Disease Control and Prevention

Jeffrey P. Koplan, MD, MPH

Director, National Center for Chronic Disease Prevention and Health Promotion

James S. Marks, MD, MPH

Managing Editor

Teresa Ramsey

Guest Writer

Linda Orgain

Staff Writers

Byron Breedlove

Susan Coatsworth

Linda Elsner

Phyllis Moir

Teresa Ramsey

Diana Toomer

Copy Editor

Suzanne Johnson-DeLeon

Layout & Design

Herman Surles

Editorial Assistant

Betty Haithcock

Address correspondence to Managing Editor, *Chronic Disease Notes & Reports*, Centers for Disease Control and Prevention, Mail Stop K-11, 4770 Buford Highway, NE, Atlanta, GA 30341-3717; 770/488-5050, fax 770/488-5095

E-mail: ccdinfo@cdc.gov

NCCDPHP Internet Web site:

<http://www.cdc.gov/nccdphp>

Improving Diagnoses

► *CONTINUED FROM PAGE 16*

American Cancer Society: www.cancer.org

Oral Cancer Information Center: www.oralcancer.org



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Mail Stop K-11

Atlanta, Georgia 30341-3717

Official Business

Penalty for Private Use \$300

Return Service Requested

FIRST-CLASS MAIL
POSTAGE & FEES PAID
PHS/CDC
Permit No. G-284