

# EARLY DETECTION



## Early Detection

There are more than one hundred types of cancer, but most share a common element: the earlier the cancer is found, the better the chances for survival. Some of the most common types of cancer in South Carolina – colorectal, breast, and prostate – can all be detected through routine tests. The challenge for the public health and medical communities is to make people aware of these life-saving tests, to understand the importance of informed decision-making in weighing the benefits and risks of particular cancer screening choices, and to remove the barriers that keep people from receiving the health care they need.

### **Colorectal Cancer**

Colorectal cancer claims more lives in South Carolina than any other malignancy except lung cancer, even though existing medical technology can detect signs of this cancer long before it becomes deadly. Survival of this disease depends upon the stage at which the cancer is diagnosed. When the cancer is detected at an early stage, the 5-year survival rate is 90 percent (ACS, 2005c). Unfortunately, in South Carolina, more than half of all colorectal cancers (53.8%) are diagnosed in later stages of the disease, when successful treatment and survival are less likely (SCCCR, 2005).

The most effective ways to detect colorectal cancer are colonoscopy and sigmoidoscopy. But only about half of all South Carolinians are receiving these crucial tests. The 2003 BRFSS survey shows that only 55 percent of South Carolinians 50 and older had received either of these procedures in the past ten years.

In addition to colonoscopy and sigmoidoscopy, inexpensive home-test kits which can be done every year are also available and include the fecal occult blood test (FOBT) or fecal immunochemical tests (FIT). However, flexible sigmoidoscopy, together with FOBT is preferred over either test alone (Smith, et al., 2005).

### **Breast Cancer**

Breast cancer is the most commonly diagnosed cancer in South Carolina women, and the second leading cause of cancer death. Early detection is critical: five-year survival rates range from almost 96 percent for cancers diagnosed at an early stage to 20 percent for distant cancers. Mammography and clinical breast examination are the primary methods of screening for breast cancer. The American Cancer Society recommends annual mammograms and clinical breast exams for all women beginning at age 40 (ACS, 2005a).

Over the past decade, South Carolina has made tremendous progress through the CDC-funded Best Chance Network (BCN) program in increasing screening rates for breast cancer. Since inception, the BCN program has provided over 91,000 Pap smear tests and more than 64,000 mammograms to 55,246 women (Brandt, et al., 2005). During 2004-2005 alone, 8,204 South Carolina women were able to receive breast/cervical cancer screening because of this program.

While BCN has been successful in screening eligible women at risk for breast and cervical cancer, there are still women in South Carolina who do not receive early cancer testing, and whose cancers go undetected until they have reached an advanced stage where chances of survival are limited. The challenge ahead is to find ways to identify and reach these women. An additional challenge to the Best Chance Network is to reach more women with the limited federal funds currently available.

### **Cervical Cancer**

South Carolina has one of the highest mortality rates in the nation for cervical cancer, a disease which is nearly 100 percent curable, if found in its earliest stages. Infection with high-risk types of human papillomavirus (HPV) is the cause of nearly all cases of cervical cancer. The risk for contracting HPV is influenced by age, lifetime number of sexual partners, number of recent sexual partners, early age at first sexual contact, and race/ethnicity.

A primary risk factor for the development of cervical cancer is failure to screen: not getting Pap smears, or receiving infrequent Pap smears. Physician recommendation has been shown to significantly increase screening for cervical cancer (Coughlin, 2005). The American Cancer Society recommends that screening for cervical cancer begin approximately three years after a woman begins having vaginal intercourse, but no later than 21 years of age. Screening should be done every year with regular Pap tests or every two years using liquid-based tests. At or after age 30, women having three normal test results in a row should be screened every 2-3 years. Women who choose to receive HPV DNA testing, a newer screening method, should receive counseling and education about HPV and the risk of cervical cancer.

As with breast cancer, screening rates for cervical cancer have significantly improved over the past decade. However, there are still women who fall through gaps in the health care system, particularly in rural areas of the state where poverty and lack of access to medical resources create additional barriers to care.

### **Prostate Cancer**

Prostate cancer is the most common cancer in South Carolina men, regardless of race, and the second leading cause of cancer death in men after lung cancer. South Carolina ranks third in the nation for deaths due to prostate cancer. African-American men have the highest incidence of prostate cancer in the world. In South Carolina, African-American men are more likely to be diagnosed with prostate cancer than white men and are almost three times more likely to die from this disease (SCCCR, 2005).

The efficacy of prostate cancer screening for the general population is currently under review and at this time, the SCCA focus is to raise men's awareness of the need to make informed decisions on the individual benefits and risks of prostate cancer testing.

### **Oral/Pharyngeal Cancer**

South Carolina currently ranks third in the nation for deaths attributable to oral/pharyngeal cancer, with African-American men in South Carolina having the highest incidence of any other race/sex group.

Survival is highly dependent upon stage at diagnosis. When detected early, these cancers have a greater than 80 percent survival rate after five years. However, in South Carolina, the majority of oral/pharyngeal cancers (54%) are diagnosed at a late stage when treatment is often less effective.

Many cancers of oral cavity can be found during routine screening examinations by a doctor or dentist (SCCCR, 2001). However, most South Carolinians are not receiving this care. The 2000 BRFSS reports that only 23 percent of South Carolinians reported having had an oral examination. The SCCA will work with community organizations, as well as with dental and medical professionals, to promote oral examination in all patients.

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### **Emerging Issues**

The development of improved methods for the early detection of cancer is critical in the war on cancer and represents a central focus of cancer research. New developments are certain to emerge during the implementation of this comprehensive cancer plan. The SCCA, with its broad range of partners, has the opportunity to act as a bridge between research, public health, medical practice, and the community.

Emerging trends in cancer detection offer the promise of improved outcomes. For cervical cancer, trends include screening for distinct HPV variants that are known to cause cancer using DNA sequencing, as well as preventive measures, such as the development of vaccines that may protect against HPV. For breast cancer, new screening technologies using ultrasound, magnetic resonance imaging (MRI), and computer-assisted diagnosis are under development. Promising research in colorectal cancer screening includes new computer-assisted imaging techniques, and DNA analysis of stool samples to detect cancerous or precancerous polyps.

Some of these new measures may be years away from everyday medical use. Other measures, such as HPV DNA testing, are available now and have been endorsed by national organizations such as the American College of Obstetricians and Gynecologists (ACOG, 2003).

As part of this plan, the SCCA will continue to monitor the development of new detection methods, stay abreast of changing recommendations regarding public health application, and continue to design strategies in response to new developments and recommendations.

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### Colorectal Cancer

**Objective 1. By June 2010, increase the proportion of adults age 50+ who have had a colonoscopy or sigmoidoscopy procedure within the past 10 years from 49.2 to 53% (SC BRFSS, 2002).**

Strategy 1. Add a two-part BRFSS question asking individuals 50+ if they have been offered a Fecal Occult Blood Test (FOBT) within the last year and if they have returned the test.

Strategy 2. Measure baseline data on the percentage of South Carolinians who follow American Cancer Society recommendations on colorectal screening.

Strategy 3. Assess gaps in, and barriers to, screening for colorectal cancer in SC among populations experiencing disparities, and review geographic distribution of incidence rates, and stages at diagnosis.

Strategy 4. Assess current insurance coverage for colorectal testing by principal SC providers; identify gaps; and collaborate with Advocacy/Policy Task Force to address gaps.

Strategy 5. Evaluate capacity for colorectal cancer screening in South Carolina, including the availability of fecal occult blood tests (FOBT), sigmoidoscopy, and colonoscopy. Assessment should include cost analysis of screening and geographic distribution of services.

Strategy 6. Identify, implement, and evaluate evidence-based strategies for public and professional education on the importance of early detection of colorectal cancer.

Strategy 7. Collaborate with faith-based and community organizations to raise awareness about colorectal cancer.

### Breast and Cervical Cancer

**Objective 2. By June 2010, increase the proportion of women age 40+ who have received a clinical breast exam (CBE) within the preceding two years from 77.4% to 82% (SC BRFSS, 2002).**

Strategy 1. Promote core competencies in CBE for providers; integrate CBE materials developed through the Breast and Cervical Cancer Early Detection Program (BCCEDP) into medical and nursing graduate education, and residency training programs.

Strategy 2. Identify and address barriers to the implementation of CBE training for continuing medical education.

### **Breast and Cervical Cancer**

Strategy 3. Collaborate with faith-based organizations, breast cancer service providers, and community organizations to recruit women who are rarely or never screened.

**Objective 3. By June 2010, increase the proportion of women age 40+ who have received a mammogram within the preceding two years from 76% to 80% (SC BRFSS, 2002).**

Strategy 1. Identify data sources in addition to BRFSS to establish more accurate mammography screening rates in SC.

Strategy 2. Implement findings from SC research on efficacy of public education campaigns to promote breast cancer screening, focusing on groups at highest risk for not being screened (i.e., small media campaigns; faith-based outreach).

Strategy 3. Collaborate with the Advocacy/Policy Task Force to seek state funding to extend mammography services comparable to BCCEDP to uninsured women who do not qualify for the program.

Strategy 4. Develop a campaign with the SC Medical Association, SC Nurse's Association, Physician Assistant associations, and the Carolina Medical Review to promote mammography referral for all women 40+ seen by providers in primary care or internal medicine practices.

**Objective 4. By June 2010, increase the proportion of women at risk for cervical cancer (including never/rarely screened, uninsured, age-specific populations) who have received screening services within the preceding three years from 83% to at least 90% (SC BRFSS, 2002).**

Strategy 1. Collaborate with providers to develop office-tracking systems to support timely re-screening.

Strategy 2. Support dissemination of new information to provide the public, as well as clinicians and public health professionals, with current and evolving science, technology, and guidelines specific to cervical cancer screening.

Strategy 3. Collaborate with faith-based organizations and community organizations to disseminate cervical cancer information.

Strategy 4. Collaborate with community partners and medical providers to expand current screening and diagnostic resources, with an emphasis on high-risk women.

Strategy 5. Collaborate with the Research Task Force to identify areas/sub-populations who are at highest risk for not being screened for cervical cancer.

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### Prostate Cancer

*Over the past decade, South Carolina has made tremendous progress through the CDC-funded Best Chance Network (BCN) program in increasing screening rates for breast cancer. Since inception, the BCN program has provided over 91,000 Pap smear tests and more than 64,000 mammograms...” (from report)*

**Objective 5. By June 2010, increase the proportion of men newly diagnosed with prostate cancer at the localized stage from 72.6% to at least 75% (SC BRFSS, 2002).**

**Objective 6. By June 2010, raise men’s awareness of the need to make informed decisions about screening for prostate cancer.**

Strategy 1. Convene a task force of experts to include African Americans and community activists to review current national screening guidelines and make recommendations for implementation of guidelines for best practice in South Carolina.

Strategy 2. Add a question to BRFSS to learn what SC males 40+ know about their personal risk for prostate cancer.

Strategy 3. Support dissemination of new information to provide the public, and especially African-American males, with evolving science, technology, and guidelines for prostate cancer.

Strategy 4. Collaborate with faith-based organizations and community organizations to disseminate prostate information to those at high risk.

*South Carolina has one of the highest mortality rates in the nation for cervical cancer, a disease which is nearly 100 percent curable, if found in its earliest stages. (from report)*

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### Oral/Pharyngeal Cancer

**Objective 7. By June 2010, increase the percentage of South Carolinians who report having had an oral examination from 23 to 30%. (SC BRFSS, 2000).**

Strategy 1. Support dissemination of new information to provide the public with evolving science, technology, and guidelines for early detection of oral/pharyngeal cancer.

Strategy 2. Collaborate with faith-based organizations and community organizations to raise awareness about oral/pharyngeal cancer.

Strategy 3. Collaborate with dental and medical associations and other health organizations to promote oral examination in all patients.

Strategy 4. Collaborate with dental and medical associations and other health organizations to promote patient counseling on the dangers of tobacco use and the importance of tobacco use cessation.

**Objective 8. By June 2010, increase the proportion of oral/pharyngeal cancers newly diagnosed among African-American males at early stage (in-situ or localized) from 22.1% to at least 30%.**

Strategy 1. Collaborate with dental and medical associations and other health organizations to promote public and professional awareness of risk factors for oral/pharyngeal cancer.

Strategy 2. Support dissemination of new information to provide the public with evolving science, technology, and guidelines for early detection of oral/pharyngeal cancer.

Strategy 3. Collaborate with faith-based and community organizations to raise awareness about oral/pharyngeal cancer.

**Objective 9. By June 2010, increase the proportion of esophageal cancers newly diagnosed among African-American males at early stage (in-situ or localized) from 20.5% to at least 33%.**

Strategy 1. Monitor ongoing science and research regarding the early detection and treatment of precursors to esophageal disease and the possible efficacy of screening/detection methods for esophageal cancer.

Strategy 2. Support dissemination of new information to provide the public with evolving science, technology, and guidelines for prevention/ early detection of esophageal cancer.

Strategy 3. Collaborate with faith-based organizations, community organizations, and employers in targeted geographical areas to reach high-risk, African-American males concerning risk factors.

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### Health Education

**Objective 10. By 2010, increase the curriculum content for health promotion and disease prevention topics and related core competencies for disease detection in schools of medicine, dentistry, nursing, and allied health sciences.**

Strategy 1. In collaboration with SCCA Prevention Task Force, identify faculty responsible for curriculum selection at major SC universities with graduate programs in medicine, dentistry, nursing, and public health.

Strategy 2. Recruit faculty in positions of leadership who agree to work with SCCA Early Detection Task Force and Prevention Task Force to undertake the following:

*South Carolina currently ranks third in the nation for deaths attributable to oral/pharynx cancer, with African-American men in South Carolina having the highest incidence of any other race/sex group. (from report)*

- Review of standardized guidelines for health promotion and disease prevention selected for their programs;
- Assess adequacy or gaps in curriculum content specific to diet, exercise, alcohol, and tobacco as related to predisposition to cancers;
- Develop annual systems of communication between SCCA and faculty to exchange information on needs and accomplishments in the implementation of curriculum topics and standardized core competencies for health promotion and disease prevention.