Action Plan on Prostate Cancer for the State of Texas

Developed by:
Texas Medical Association’s
Physician Oncology Education Program

Andrew Miller, MHSE, CHES
Project Director

Robin C. Calloway
Project Coordinator

Debbie Celusniak
Graphic Artist

This project is a collaboration of these agencies and organizations:

American Cancer Society, Texas Division, Inc.
Texas Cancer Council
Texas Department of Health
Texas Medical Association

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This report is also available on the Web at:
www.tcc.state.tx.us
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Introduction
Introduction

Project Charge

In 2001, the Texas Department of Health (TDH) received funding from the Centers for Disease Control and Prevention (CDC) through its Comprehensive Cancer Control Program. TDH allocated these funds to the Texas Cancer Council (TCC) for the formulation of the Action Plan on Prostate Cancer for the State of Texas. TCC awarded Texas Medical Association’s Physician Oncology Education Program (POEP) these funds to facilitate the creation of the Action Plan. The goal of the project was to identify the education, testing, treatment and support resources currently available in the state and recommend and prioritize those needing development to reduce the impact of prostate cancer on Texans.

Plan Development

The TDH Prostate Cancer Advisory Committee resolved to facilitate the creation of a state action plan on prostate cancer upon reviewing previously developed state action plans on colorectal and skin cancers. The Texas Cancer Plan: A Guide for Action, developed by the Texas Cancer Council, would serve as the guide for its development. The project was begun Sept. 1, 2001, when TCC awarded to the POEP the funds to create the Action Plan on Prostate Cancer for the State of Texas. The POEP proposed to use the TDH Prostate Cancer Advisory Committee as the Advisory Committee for this project.

The POEP began by creating a timeline for completion of the plan development by Nov. 30, 2001 (see “Schedule of Activities”). Work began by compiling current state and national resources and identifying key individuals from the state involved in prevention, screening and detection, treatment, and support services for prostate cancer to serve as content contributors. Members of the public and professional communities in Texas were included in this group. These key individuals were asked to recommend specific resources and objectives given the goals identified in the Texas Cancer Plan. They defined a number of priority needs in the state and the POEP synthesized these recommendations into specific objectives. A meeting of key individuals was held to discuss these objectives and to make recommendations for changes to the Advisory Committee.

The Advisory Committee and Texas Cancer Council reviewed and revised the final draft of the Action Plan. The final printed document is scheduled for distribution to community organizations, health care professionals, educators, policy-makers and opinion leaders, and for public posting on the Internet. The Advisory Committee will meet at its regularly scheduled meetings to discuss implementation of the Action Plan recommendations.
Schedule of Activities

Sept. 1, 2001   Begin work on background paper.
Sept. 1, 2001   Begin contacting key individuals to assist in creating the Plan.
Oct. 1, 2001   Distribute worksheets to contributors requesting resources and objectives under goals.
Nov. 2, 2001   Disseminate first draft of compiled information to key individuals for review and feedback.
Nov. 8, 2001   Meeting of TDH Prostate Cancer Advisory Committee to review the first draft.
Nov. 16, 2001  Meeting of key individuals to discuss the proposed goals and objectives of the Plan.
Nov. 26, 2001  Second draft review by TDH Prostate Cancer Advisory Committee.
Nov. 30, 2001  Final draft approval.
Feb. 28, 2001  Plan distributed in hard copy.

Advisory Committee

The TDH Prostate Cancer Advisory Committee served as the Advisory Committee for the creation of the Action Plan. The Advisory Committee also included individuals who regularly contribute to the TDH Prostate Cancer Advisory Committee as content experts, survivors, or guests. Members of the committee included:

Jerome H. Supple, PhD, Chair
President of Southwest Texas State University

James D. Kolker, MD, Vice Chair
Cancer Institute, East Texas Medical Center

Umed Ali Ajani, MD, MPH, Member
University of North Texas Health Science Center at Fort Worth
School of Public Health

Evelyn C.Y. Chan, MD, Member
The University of Texas Health Science Center at Houston

Angie Colbert, Content Expert
American Cancer Society, Texas Division, Inc.

Ken Condon, TDH Staff
Behavioral Risk Factor Surveillance System

Lauro G. Guerra, MD, Member
Health Department, City of McAllen

Philip Huang, MD, MPH, TDH Staff
Bureau of Chronic Disease and Tobacco Prevention

Mickey L. Jacobs, MSHP, Member
Texas Cancer Council

Gregorio Baca Jimenez, Member
Survivor

Larry Laufman, EdD, Content Expert
Chronic Disease Prevention & Control Research Center;
Baylor College of Medicine

Catherine McGuire, RN, MPAff, Content Expert
Nurse Oncology Education Program

Andrew Miller, MHSE, CHES, Staff Liaison
TMA Physician Oncology Education Program

Carol Rice, PhD, RN, Member
Texas Cooperative Extension

James Robinson III, EdD, Member
School of Rural Public Health,
Texas A&M University System Health Science Center

Juanita Salinas, MSW, TDH Staff
Adult Health/Comprehensive Cancer Control Program

Marci Spivey, TDH Staff
Adult Health/Comprehensive Cancer Control Program

J. Dennis Thomson, Guest
Survivor

Karen Torges, Member
American Cancer Society, Texas Division, Inc.

Robert R. Unterberger, PhD, Member
Survivor

Armin D. Weinberg, PhD, Content Expert
Chronic Disease Prevention & Control Research Center;
Baylor College of Medicine

Melanie Williams, PhD, TDH Staff
Texas Cancer Registry

Anne Williamson, MEd, TDH Staff
Adult Health/Comprehensive Cancer Control Program
Prostate Cancer Action Plan Meeting Attendees

A special thanks goes to the following attendees to the Prostate Cancer Action Plan meeting held on Nov. 16, 2001 at the Texas Medical Association Headquarters in Austin, TX.

Umed Ali Ajani, MD, MPH
University of North Texas Health Science Center at Fort Worth

Evelyn C.Y. Chan, MD
The University of Texas Health Science Center at Houston

Angie Colbert
American Cancer Society, Texas Division, Inc.

Elise Cook, MD
The University of Texas M.D. Anderson Cancer Center

Lewis E. Foxhall, MD
The University of Texas M.D. Anderson Cancer Center

H. Pat Hezmall, MD
Private Practice

William Woolford Hinchey, MD
Baptist Health System

Philip Huang, MD, MPH
Bureau of Chronic Disease & Tobacco Prevention
Texas Department of Health

Mickey L. Jacobs, MSHP
Texas Cancer Council

Gregorio Baca Jimenez
Survivor

James David Kolker, MD
East Texas Medical Center

Catherine McGuire, RN, MPAff
Nurse Oncology Education Program

David Menter, PhD
The University of Texas M.D. Anderson Cancer Center

Tom Parker
Survivor

Carol Rice, PhD, RN
Texas Agricultural Extension Service

James Robinson, III, EdD
Texas A&M University System Health Science Center

Juanita Salinas, MSW
Texas Department of Health

Bolaji S. Sofola, MD
Huntsman Prostate Cancer Screening Program

Marci Spivey
Texas Department of Health

Bill Varner
US TOO! International Inc.

Armin D. Weinberg, PhD
Baylor College of Medicine

Melanie Williams, PhD
Texas Department of Health

Karen Torges
American Cancer Society, Texas Division, Inc.
Acknowledgements

Appreciation also goes to the following key individuals, all of whom contributed to the successful completion of the Action Plan.

John Antoine, MD, FACR
Veteran’s Affairs Medical Center in Dallas

H. Paul Cooper, MA
Baylor College of Medicine

Steven Johnson, MD
Texoma Urology Associates

Ann M. Killary, PhD
The University of Texas M.D. Anderson Cancer Center

Edward L. Middleman, MD, MPH
Methodist Medical in Dallas

Key Stage, MD
The University of Texas Southwestern Medical Center at Dallas

Ian Thompson, MD
The University of Texas Health Science Center at San Antonio

Weihua Li, MD, MPH
Texas Department of Health

Nancy Weiss, PhD
Texas Department of Health

Barbara Wojnarowska, PhD
The University of Texas Health Science Center at San Antonio

Anne E. Wilburn
The University of Texas M.D. Anderson Cancer Center

Bernard Levin, MD
The University of Texas M.D. Anderson Cancer Center

Susan Madigan
The University of Texas M.D. Anderson Cancer Center
Contributing Committees

In addition to the project Advisory Committee, appreciation goes to the following contributing committees, all of whom participated in the development of this plan and who continue to work in prostate cancer education, control and support:

**American Cancer Society, Texas Division, Inc. 2001-2002 Prostate Cancer Committee**

- Key Stage, MD, Dallas, Chair
- John Antoine, MD, FACR, Dallas
- Robert M. Craig, DDS, San Antonio
- Werner De Riese, MD, Lubbock
- Michael Fitzpatrick, MD, Dallas
- Lewis Foxhall, MD, Houston
- Larry K. Fuller, Amarillo
- Philip Huang, MD, MPH, Austin
- James Luce, MD, Amarillo
- George W. Lunnon Jr., Houston
- Melvin Maltz, Houston
- Edward L. Middleman, MD, MPH, Dallas
- Frank Middleton, El Paso
- Andy Miller, MHSE, CHES, Austin
- Keith Mirrer, San Antonio
- Yondell Moore, MD, Dallas
- Jim Patton, Fort Worth
- Joseph Quander Jr., MD, Austin
- Peter Racheotes, EdD, Texarkana
- Juanita Salinas, MSW, Austin
- David O. Taber, MD, El Paso
- Gerard Voorhees, MD, Corpus Christi
- Bernard Warren, Fort Worth

**Texas Cancer Council Board of Directors**

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- A. Clare Buie Chaney, PhD, LPC, Dallas
- Carolyn D. Harvey, RN, PhD, Tyler
- Rubye H. Henderson, MEd, Plainview
- Larry Herrera, MD, Temple
- William C. Levin, MD, Galveston
- John F. Sandbach, MD, Austin
- Courtney M. Townsend Jr., MD, Galveston
- J. Taylor Wharton, MD, Houston
- Philip Huang, MD, MPH, Texas Department of Health, Ex Officio Member
- Mickey L. Jacobs, MSHP, Executive Director

**Texas Medical Association 2001-2002 Committee on Cancer Members:**

- Catherine A. Ronaghan, MD, Lubbock - Chair
- Bruce M. Bauknight, MD, Victoria
- David L. Callender, MD, Houston
- Joel S. Dunnington, MD, Houston
- John W. Freese, MD, Fort Worth
- Cheryl A. Harth, MD, Dallas
- Lalitha M. Janaki, MD, Corpus Christi
- Robena E. Medbery, MD, Tyler
- Panagiotis N. Valilis, MD, El Paso
Contributing Committees

(continued)

Consultants:
- Michael C. Fitzpatrick, MD, Dallas
- Lawrence S. Frankel, MD, Temple
- Rosemary McKee, CTR, San Antonio
- Billy U. Philips Jr, PhD, MPH, FACE, Galveston
- Karen Torges, Austin

Special Appointees:
- Alberto J. Montero, MD, Houston
- Aspen E. Smith, San Antonio
- G. Brandon Gunn, Lubbock
- Madelyn von Eschenbach, Missouri City
- Teri Wenglein-Callender, Bellaire

Texas Medical Association
Physician Oncology Education Program
Steering Committee
- Geoffrey Weiss, MD, Chair
- Michael Ahearn, PhD, Vice Chair

American College of Surgeons – South Texas Chapter
- Diana Contreras, MD
- Texas Association of Obstetricians and Gynecologists
- John Costanzi, MD
- Texas Medical Association
- Lewis E. Foxhall, MD
- Texas Academy of Family Physicians
- Lawrence S. Frankel, MD
- Texas Pediatric Society
- Raphael Gallardo, MD
- National Black Leadership Initiative on Cancer
- Philip Huang, MD, MPH
- Texas Department of Health
- A. Marilyn Leitch, MD
- The University of Texas Southwestern Medical Center at Dallas
- Ray O. Lundy, MD
- American Cancer Society
- David D. Madorsky, MD, MPH
- Texas Dermatological Society
- Billy U. Philips Jr, PhD, MPH, FACE
- The University of Texas Medical Branch at Galveston
- Marcus M. Purvis, MD
- Texas Academy of Family Physicians
- Amelie Ramirez, DrPH
- Baylor College of Medicine – Redes en Acción
- Catherine A Ronaghan, MD, FACS
- American College of Surgeons – North Texas Chapter
- V.O. Speights, DO
- Texas A&M University System College of Medicine/Scott & White
- Karen Torges
- American Cancer Society, Texas Division, Inc.
- Claire Verschraegen, MD
- The University of Texas – Health Science Center at Houston
- David Wasserman, DO
- Texas Osteopathic Medical Association
- Armin D. Weinberg, PhD
- Baylor College of Medicine
- Darryl M. Williams, MD
- Texas Tech University Health Sciences Center
Executive Summary
Executive Summary

In 2001, the Centers for Disease Control and Prevention, through the Texas Department of Health and the Texas Cancer Council, allocated funding for the formulation of the Action Plan on Prostate Cancer for the State of Texas. The goal of the project was to identify the education, testing, treatment, and support resources currently available in the state and to recommend and prioritize those needing development. This effort supports the mission of the Texas Cancer Council to “... [reduce] the human and economic impact of cancer on Texans through the promotion and support of collaborative, innovative, and effective programs and policies for cancer prevention and control.”

Second only to skin cancer, prostate cancer is the most common form of cancer in men in the United States. In 2001, it is estimated that 198,000 new prostate cancers will be found in American men. After lung cancer, prostate cancer is the second leading cause of cancer deaths in men and is estimated to have claimed the lives of 31,500 American men in 2001.

From 1995-1997, 29,587 Texans were diagnosed with prostate cancer and an estimated 10,600 new cases will be diagnosed in 2001. In 1998, prostate cancer cost the state an estimated $445.4 million, and it is believed that Texans lost an estimated 14,800 years of life due to deaths caused by prostate cancer. African-American men carry a disproportionate amount of this burden, since they are twice as likely as white men and three times as likely as Hispanic men to die from the disease. More than 93 percent of Texans who were diagnosed with prostate cancer were over 55 years of age and 70 percent were over 65. Unfortunately, the exact cause of prostate cancer has not been found and it is unclear whether or not prostate cancer can truly be prevented. Clinical prevention trials that evaluate specific prevention methods are currently being conducted in the state.

The number of prostate cancers reported has generally risen annually due to earlier detection using the prostate-specific antigen (PSA) blood test, increased patient awareness, increased lifespan, and possible environmental factors. Evidence of early prostate cancer can be found at any adult age, but is more common in men over 60 years of age. When it progresses and becomes more advanced, prostate cancer can kill men of any age.

There is, nevertheless, some controversy surrounding early detection and treatment. This malignant disease, unlike most other cancers, often can have a very long natural history, taking many years to grow and progress. In fact, it may take so long to progress that the patient dies of other causes before their prostate cancer has had a chance to spread or even cause symptoms.

The controversy in testing large groups of men is that many men with prostate cancer will be identified who may never really need to undergo treatment. Since there currently is no way to determine which early cancers will progress, curative treatment (in the form of surgery or radiation) may be used on patients who might actually never need “curing.” The problem is that any form of curative treatment can have significant long-term side effects, impairing quality of life. In addition, if curative treatment is chosen, controversy exists as to which treatment modality is most appropriate for the individual. It is, therefore, widely recommended that the issues involved in prostate cancer be made known to the public so that men can make an informed choice as to whether to be tested for prostate cancer and be encouraged to make decisions along with their physician and family.
This Action Plan defines a set of goals for the general public, community leaders, advocacy and support organizations, health care community, and funding agencies to reduce the impact of prostate cancer on the state by promoting awareness, education, accessibility, and research. It also provides a list of specific recommendations to achieve the following goals:

**GOAL I:**
Raise public awareness by increasing the availability, use, and effectiveness of prostate cancer information.

**GOAL II:**
Increase the number of men who participate in “shared decision-making” with medical professionals regarding testing for prostate cancer.

**GOAL III:**
Increase access to and utilization of quality prostate cancer care.

**GOAL IV:**
Enhance health care professionals’ knowledge, skills and practices in prostate cancer prevention, testing, diagnosis, treatment, rehabilitation, and support.

**GOAL V:**
Enhance and facilitate quality research, data collection, analysis and surveillance that furthers the goals of the Action Plan on Prostate Cancer for the State of Texas.
Recommendations
Recommendations

The recommendations outlined in this Action Plan were developed utilizing the National Healthy People 2010 goals and objectives for prostate cancer. The document served as a guide for the development of Texas specific goals and objectives with the primary goal to reduce the prostate cancer death rate to 28.8 deaths per 100,000 males.

GOAL I

Raise public awareness by increasing the availability, use, and effectiveness of prostate cancer information.

- Increase the number of Texans who are aware of prostate health.

- Increase the number of men at increased risk for developing prostate cancer who are aware of their risk, as well as the potential risks and benefits of prostate cancer testing. (See also GOAL II)

- Consolidate prostate cancer information, including prevention, testing, treatment, support services, and alternative and complementary therapies, that is available from various sources and make available to the public via multiple modalities. Resource information by region and for special populations or population subgroups should be included.

- Engage civic, private, educational and faith-based organizations, as well as employers, in disseminating prostate cancer awareness and testing information, especially during Prostate Health Month in September, National Minority Cancer Awareness Week in April, and Prostate Cancer Awareness Week in June. Encourage education policy-makers to include cancer information, including prostate cancer information, into health education curricula.

- Work through appropriate professional organizations and institutions to increase the number of persons participating in prostate cancer prevention clinical trials, especially men at high risk for developing prostate cancer.

- Promote the availability of support and outreach services.

- Encourage collaborative efforts among organizations that disseminate prostate cancer awareness information.

- Evaluate effectiveness of existing materials, current outreach efforts by various programs, and available testing information for accuracy and to ensure they are culturally appropriate.

- Make recommendations for modifications of materials and current outreach efforts in the programs evaluated.
GOAL II

Increase the number of men who participate in “shared decision-making” with medical professionals regarding testing for prostate cancer.

• Increase the number of men at increased risk for developing prostate cancer who are aware of their risk, as well as the potential risks and benefits of prostate cancer testing. (See also GOAL I)

• Advocate annual physical examinations for men. Starting no later than age 50, or earlier for those at greater-than-average risk, incorporate “shared decision-making” about prostate cancer testing and offer information as part of the examination. Also, advocate these annual exams and physician counseling as covered insurance benefits. (See also GOAL III)

• Promote funding for culturally appropriate information about prostate cancer testing, diagnosis, treatment and care. (See also GOAL III)

• Identify communication gaps in the clinician/patient relationship and develop appropriate practice models and tools to facilitate the exchange of accurate information regarding prostate cancer development, progression, testing, and treatment, including side effects. (See also GOAL IV)

• Advocate for the inclusion of education on prostate cancer testing, including information on “shared decision-making,” to medical, nursing, residency and applied health curricula. (See also GOAL IV)

• Increase the number of health care professionals in Texas who are aware of and who use a “shared decision-making” model when discussing options for prostate cancer testing and treatment. (See also GOAL IV)
GOAL III

Increase access to and utilization of quality prostate cancer care.

- Advocate annual physical examinations for men. Starting no later than age 50, or earlier for those at greater-than-average risk, incorporate “shared decision-making” about prostate cancer testing and offer information as part of the examination. Also, advocate these annual exams and physician counseling as covered insurance benefits. (See also GOAL II)

- Convene key policy-makers in the public and private sectors, including but not limited to decision-makers in the insurance and health care industries and corporate executives, to increase their knowledge about prostate cancer testing and treatment and secure their commitment to include coverage.

- Promote inclusion of “shared decision-making” about prostate cancer into the Health Plan Employer Data and Information Set (HEDIS) List of Measures, established by the National Committee on Quality Assurance.

- Promote funding for programs to serve the uninsured and underinsured men who need prostate cancer care.

- Promote funding for culturally appropriate information about prostate cancer testing, diagnosis, treatment and care. (See also GOAL II)

- Promote an integrated and comprehensive approach to prostate cancer management.

- Obtain funding to research and identify “best practices” for reducing barriers to prostate cancer services.

- Increase advocacy for support services available to men, their loved ones and caregivers, beginning with testing and continuing through diagnosis and treatment of prostate cancer.

- Increase the access by underserved or higher risk populations to prostate cancer testing and clinical evaluation through the development of public and private sector partnerships.

- Encourage utilization and expansion of the Texas Cancer Data Center and Cancer Gateway of Texas as a clearinghouse for screening, treatment and support services regarding prostate cancer.
GOAL IV

Enhance health care professionals’ knowledge, skills and practices in prostate cancer prevention, testing, diagnosis, treatment, rehabilitation, and support.

- Identify communication gaps in the clinician/patient relationship and develop appropriate practice models and tools to facilitate the exchange of accurate information regarding prostate cancer development, progression, testing, and treatment, including side effects. (See also GOAL II)

- Advocate for the inclusion of education on prostate cancer testing, including information on “shared decision-making,” to medical, nursing, residency and applied health curricula. (See also GOAL II)

- Increase the number of health care professionals in Texas who are aware of and who use a “shared decision-making” model when discussing options for prostate cancer testing and treatment. (See also GOAL II)

- Assess primary health care professionals’ knowledge, attitudes and practices regarding prostate cancer, including use of prevention strategies, use of risk assessment practices, use of “shared decision-making” strategies, use of testing modalities, and referral for treatment, support services and follow-up care (including hospice). Utilize this data to develop educational interventions using a variety of modalities. (See also GOAL V)

- Increase the number and scope of prostate cancer educational programs offered to health care professionals.

- Design continuing education content for health care professionals that reflects and addresses the current health care environment, including information on controversies in testing asymptomatic men for prostate cancer, access to appropriate services, risk assessment, racial/ethnic disparities, maximum reimbursement for services, importance of support services for patients and families, and sound medical practice management.

- Create and disseminate “state-of-the-science” communiqués to keep health care professionals up to date on prostate cancer prevention and methods of detection and treatment.

- Educate physicians on the availability of clinical trials for the prevention, detection and treatment of prostate cancer, and address barriers to participation.

- Review current professional education materials regarding prostate cancer treatment options, including efficacy, side effects and quality-of-life post-treatment, to ensure professionals have access to reliable “state-of-the-science” information.

- Encourage collaboration among professional organizations to create new materials, if needed, and to disseminate and evaluate their effectiveness.
GOAL V

Enhance and facilitate quality research, data collection, analysis and surveillance that furthers the goals of the Action Plan on Prostate Cancer for the State of Texas.

• Assess primary health care professionals’ knowledge, attitudes and practices regarding prostate cancer, including use of prevention strategies, use of risk assessment practices, use of “shared decision-making” strategies, use of testing modalities, and referral for treatment, support services and follow-up care (including hospice). Utilize this data to develop educational interventions using a variety of modalities. (See also GOAL IV)

• Support the implementation of reporting to the Texas Cancer Registry by physicians and pathology practices to achieve more complete statewide prostate cancer incidence data. This includes support of adequate funding to collect more complete data.

• Evaluate the level of public awareness and knowledge regarding prostate cancer prevention, risk factors, testing and treatment, including post-treatment quality-of-life issues.

• Promote research that measures the understanding of disparities in prostate cancer incidence, morbidity, mortality, testing practices, treatment, and post-treatment quality-of-life among special populations and population subgroups, including analysis of data to determine the influence of various risk factors.

• Publish data and research findings on prostate cancer in an easily accessible medium (such as Texas Cancer Data Center).

• Identify existing data elements that will further the implementation of this Action Plan.

• Monitor ongoing research pertinent to the implementation of this Action Plan, including the efficacy of prevention, testing, treatment, and management of prostate cancer.

• Monitor the implementation of the goals in this Action Plan, identifying gaps, as well as possible methods and/or organizations that can address unmet objectives.
Prostate Cancer in Texas
The Prostate Gland and Prostate Cancer

The prostate gland is part of the male urinary and reproductive systems. It is located just below the bladder and, when healthy, is about the size of a walnut. The prostate produces seminal fluid and, since the urethra passes through the prostate, the flow of urine from the bladder can be affected by changes in the prostate.

It may take years for a man to develop prostate cancer. Some prostate cancers are slow growing (indolent) and may never be life-threatening while other prostate cancers may progress rapidly and spread aggressively. Initially, the cancerous cells are limited to the prostate ducts and glands. This is referred to as cancer in situ. However, these cancerous cells eventually will spread or metastasize out of the ducts and into the blood and lymphatic system. Unfortunately, it is not possible to detect a single or a few cancer cells. With present technology, only a small lump, or mass, of cancer cells can be detected and this mass may have been forming for several years.

Prostatic intraepithelial neoplasia (PIN) is thought to represent pre-cancerous cells. PIN refers to the cells that are significantly different from normal prostate cells. It is normally found in older men, and it is estimated that cancer will eventually be found in 35 percent to 50 percent of follow-up biopsies in men with PIN. PIN does not affect prostate-specific antigen (PSA) and cannot be felt on a rectal exam. It is found frequently by needle biopsy (1).

The most common form of prostate cancer is Adenocarcinoma, which originates within the tiny glands of the prostate itself. It begins as a tiny, mutated, atypical cell that grows and multiplies to involve increasing amounts of the prostate gland. If left untreated, the cancer cells may metastasize through the capsule of the gland and make their way to other tissues in the body. This can occur early in the growth stage or take many years.

Risk Factors

It is not yet clear what causes prostate cancer, but certain factors may play a significant role in its development. Individuals with the following characteristics are at higher-than-average risk for developing prostate cancer:

**Age**

Older age is the most important risk factor for developing prostate cancer. In Texas, approximately 71 percent of prostate cancers are diagnosed in men 65 years and older (Table 1). More than 93 percent of men who develop prostate cancer are age 55 or older (2). For men age 65 or older, the odds are 1 in 65 of being diagnosed; whereas for men age 45 to 49, the odds are 1 in 9,085 of being diagnosed with prostate cancer (3). The average age for diagnosis is 73, and about one-third of men over 80 years of age have histologic evidence of latent prostate cancer - most without symptoms. Prostate cancer is not common in men under 50 years of age.
The male hormone testosterone is thought to play a role in the development of prostate cancer in older men. Testosterone stimulates the prostate to grow and is a factor in the development of cancerous growths, especially in men over 40. Men who do not produce testosterone or lose normal testosterone activity before puberty do not develop prostate cancer.

Racial/Ethnic Groups
African-American men have the nation’s highest incidence rate of prostate cancer, despite the fact that their African counterparts have low rates of the disease. Their mortality rates are double those of white American men and more than three times higher than those of Hispanic men. In part, this can be explained by stage of disease at the time of diagnosis. The percent of diagnosis at earliest stage ranges from a high of approximately 63 percent in white males, to 56 percent in Hispanic males and other races, to a low of 55 percent in African-American males (4). Access to appropriate information and testing may also be a contributing factor.

Family History
There is a strong link between prostate cancer and family history. Some studies have found that men with an affected close relative, such as a father or brother, are two to three times as likely to develop prostate cancer as men with no affected relatives. Lifetime risk can multiply five times among men with two affected first-degree relatives; and ten times with more than two affected first-degree relatives. Several genes have been identified that may be linked to high risk for developing prostate cancer. However, it is still unclear as to whether hereditary or environmental factors alone can cause prostate cancer.

Lifestyle
Ongoing research suggests that diet plays an important role in both preventing and increasing the development of prostate cancer. Men whose diet is high in fiber seem to be less likely to develop prostate cancer due to the loss of some sex hormones through the intestinal tract. There is some evidence that beta-carotene and soy protein products that contain weak hormone-like substances may offer some protection as well. Diets high in fat, especially saturated fats, are linked to higher risk of developing prostate cancer; possibly due to a substance called alpha-linoleic acid. This substance can stimulate cell growth and division. Animal sources of protein have been linked epidemiologically to increased risk of prostate cancer as well.

### Table 1

<table>
<thead>
<tr>
<th>Age</th>
<th>No. Cases</th>
<th>% Total New Cases of Prostate Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-34</td>
<td>1</td>
<td>less than 1%</td>
</tr>
<tr>
<td>35-44</td>
<td>35</td>
<td>less than 1%</td>
</tr>
<tr>
<td>45-54</td>
<td>576</td>
<td>5.8%</td>
</tr>
<tr>
<td>55-64</td>
<td>2,263</td>
<td>23.0%</td>
</tr>
<tr>
<td>65-84</td>
<td>6,441</td>
<td>65.3%</td>
</tr>
<tr>
<td>85+</td>
<td>546</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Source: Texas Cancer Registry
Prostate Cancer Incidence and Mortality

Nationally, there will be an estimated 198,100 new cases of prostate cancer in 2001, with rates for African-American men significantly higher than any other racial/ethnic group. Because of the increased use of the prostate-specific antigen blood test, incidence rates soared between 1988 and 1992. However, the rates have since declined and leveled off, with rates peaking in 1992 in white males and in 1993 in African-American males. A man’s lifetime risk of being diagnosed with prostate cancer is 15 percent; 8 percent will develop significant symptoms; and 3 percent will die of the disease.

In the United States, prostate cancer is the second leading cancer cause of death in men, with 31,500 deaths estimated for 2001. Mortality rates in African-American males are more than two times that of white males. However, nationwide mortality rates are declining among both African-American and white males (5).

Of the 36,833 cancers diagnosed annually in Texas males during 1995–1997, prostate cancer was the most common. Prostate cancer accounted for 26.8 percent of all cancers among this group, with an average of 9,862 newly diagnosed cases per year. For 2001, it is estimated that 10,600 Texas men will be diagnosed with prostate cancer.

Prostate cancer leads the state in cancer diagnoses for males in each individual race/ethnic group for the years 1995–1997. African-American males had the highest incidence of prostate cancer. The age-adjusted incidence rate for African-American men in Texas (183.3 per 100,000 men) was over twice the rate for Hispanics (85.8 per 100,000 men) and almost 50 percent higher than the rate for white men (127.1 per 100,000 men). There is insufficient data to comment on Asian and Native American incidence.

Prostate cancer was the second leading cause of cancer deaths among Texas males for the years 1990–1999, surpassed only by lung and bronchus cancers. Prostate cancer accounted for 11.3 percent of the total male cancer deaths. The number of prostate cancer deaths increased 28 percent from 1,381 in 1987 to 1,770 in 1999 (Table 2). From 1990–1999, African-American men had the highest age-adjusted prostate cancer mortality rate (54.1 per 100,000 men), which was more than three times that of Hispanic men (16.3 per 100,000 men), and more than twice that of white men (23.2 per 100,000 men). This disparity is consistent with national trends as well (6).

Table 2

<table>
<thead>
<tr>
<th>Prostate Cancer Deaths from 1987 to 1999, Texas</th>
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<tbody>
<tr>
<td>1987</td>
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<td>1988</td>
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<td>1998</td>
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<td>1999</td>
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</table>

Source: Texas Cancer Registry and Bureau of Vital Statistics
Prevention

It is not always possible to explain why one person gets cancer and another does not. However, scientists have studied general patterns of cancer in the population to learn what things in the environment and what behaviors might increase one’s chance of developing cancer. While it is not clear exactly what causes prostate cancer or how we can prevent it from developing, research is underway to discover what individuals might do to reduce their risk or to prevent prostate cancer from developing. This research includes clinical prevention trials in chemoprevention, diet and lifestyle behaviors, and hormone reduction.

Chemoprevention

Chemoprevention is the use of specific natural or man-made drugs, vitamins, or other agents to reverse, suppress, or prevent cancer growth. Several agents, including difluoromethylornithine (DFMO), isoflavonoids, selenium, vitamins D and E, and lycopene have shown potential benefit in some studies. Because the results are inconsistent, further studies are needed to confirm this.

Diet and Lifestyle

A diet high in fat, especially animal fat, may be associated with an increased risk of prostate cancer. Increased dietary intake of fruits and vegetables has been associated with a reduced risk of prostate cancer in some studies.

Hormonal Prevention

Studies are underway to discover the role of certain drugs, such as finasteride, that reduce the amount of male hormone as preventive agents for prostate cancer.

The Prostate Cancer Prevention Trial (PCPT) has collected all of the necessary participant data to be analyzed. The second prevention trial, the study of the Selenium and Vitamin E. (SELECT) is still looking for participants. Men are encouraged to join this or future trials.

Testing

In testing for prostate cancer, the hope is that the cancer will be detected early enough to be treated before it has a chance to spread. Generally, the earlier a cancer is discovered, the better the likelihood of curing it. The following are tests for detecting prostate cancer:

Digital Rectal Exam (DRE)

Digital rectal examination is a simple and easy procedure that can be used to detect prostate cancer. The prostate is normally soft and pliable and symmetrical in shape. During the examination, the health care professional inserts a gloved, lubricated finger into the rectum and feels against the rectal wall toward the patient’s abdomen. Generally, a hard mass found in the prostate during a DRE indicates the presence of prostate cancer. Nevertheless, the whole prostate cannot be felt during this exam so not all cancers can be detected. The exam takes only a few seconds and is relatively uncomplicated. An abnormal DRE needs further evaluation to determine if cancer is present. A normal DRE does not rule out cancer.

Prostate-Specific Antigen (PSA) Test

Prostate-specific antigen is a protein that is made by both normal prostate gland tissue and prostate cancer cells. It can leak out into the bloodstream and circulate throughout the body. A sample of blood tested for PSA can, therefore, detect the activity of both a normal prostate gland and prostate cancer (located anywhere in the body). When the prostate is enlarged or inflamed it may leak out more PSA. Prostate cancer also can produce and leak out PSA. When the gland is enlarged/inflamed or there is a significant amount of prostate cancer present anywhere in the body, the PSA level in the blood can rise.

The usual baseline amount of PSA in a man’s bloodstream can vary with a number of factors, including age, race and prostate volume. This should be taken into account when interpreting PSA results. The PSA values have been divided into categories reflecting the likelihood of containing prostate cancer: Generally, results less than 4 nanograms per milliliter (ng/ml) are generally considered “normal” in that the likelihood of cancer is very small. Levels between 4 and 10 ng/ml are “slightly” elevated, 10 to 20ng/ml “moderately elevated” and above 20 ng/ml “highly elevated” and, therefore, highly suspicious. It is certainly possible to have a small amount of prostate cancer present even with a PSA in the normal range. Studies have estimated that approximately 15 percent of men with total PSA less than 4 ng/ml may still have prostate cancer (?).
Biopsy

An elevated PSA above the normal range or an abnormal DRE can be an indication for further investigation into whether there is prostate cancer present. A mildly elevated PSA or abnormal DRE alone does not make the diagnosis of prostate cancer. Absolute diagnosis requires a prostate needle biopsy. This involves insertion of special needles into the gland to remove tissues for microscopic analysis.

If the upper limit of the normal range of PSA is lowered (that is, to a value less than 4 ng/ml), this will detect a higher percentage of men with cancer, but also will subject more men to needless prostate biopsy. A large focus of past and ongoing study has been aimed at refining the PSA test and even studying other cancer detection methods so that the tests can better discriminate between those who truly have prostate cancer and those whose PSA is elevated for benign reasons (8) (9).

Abnormalities in the DRE or the PSA require further evaluation. Neither test is diagnostic and often a biopsy of the prostate gland is needed to determine if cancer is present. This involves the insertion of special needles into the gland to remove tissue for analysis.

Transrectal Ultrasound (TRUS)

The transrectal ultrasound (TRUS) is not recommended as an independent test but can be performed in conjunction with a needle biopsy to detect prostate cancer. During this procedure, a small probe that gives off and detects high-frequency sound waves is inserted into the rectum. The sound wave patterns that bounce back are transformed to a video image. Areas of cancer may be detected because they produce patterns that are distinct from healthy tissue. The accuracy of a TRUS can be strongly affected by the quality of the equipment and the skill of the individual operating it (10).

The American Cancer Society affirms that death rates have dropped since early detection tests for prostate cancer have become available. However, it is not proven that the decrease is a direct result of screening and studies have yet to prove that early detection of prostate cancer will result in a lower death rate. If a man’s life expectancy is 10 years or greater and prostate cancer is discovered, it will likely result in an early death. However, if a man is older and in poor health, then prostate cancer may never be of significance because of its slow growth (11).

In Texas, insurance coverage for the provision of prostate cancer screening on an appropriate medical schedule without copayment or deductible is mandated by the state legislature (See Appendix D).

Differences in Recommendations for Prostate Cancer Screening

Screenings of asymptomatic individuals are performed so that diseases may be detected at the earliest stage of development and prolong or improve quality of life. With regard to prostate cancer, it remains unclear whether or not increased screening will lead to a decrease in mortality. Consequently, screening recommendations from professional organizations vary (12). Nevertheless, all authorities recognize the need to counsel patients on the risks and benefits of screening and that it is the individual’s choice whether or not to have the test. Table three illustrates the various prostate cancer screening recommendations from several professional organizations.

The U.S. Preventive Services Task Force at this time does not recommend routine screening among the general population for prostate cancer using the DRE or PSA. It states that, “Routine screening for prostate cancer with DRE, serum tumor markers (e.g., PSA), or TRUS is not recommended. Patients who request screening should be given objective information about the potential benefits and harms of early detection and treatment. Patient education materials that review this information are available. If screening is to be performed, the best-evaluated approach is to screen with DRE and PSA and to limit screening to men with a life expectancy greater than 10 years. There is currently insufficient evidence to determine the need and optimal interval for repeat screening or whether PSA thresholds must be adjusted for density, velocity, or age (13).” However, these and all guidelines are continuously reviewed as scientific knowledge increases.

The American Cancer Society recommends that men who have a life expectancy of at least 10 years should be offered routine screening at age 50. Also, it is recommended that African-American men and those who have two or more affected relatives should
In Texas, most physicians recommend prostate cancer screening for asymptomatic patients age 50 or older (See Appendix B).

One large scale study to test whether or not early detection and treatment saves lives is the Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial. The National Cancer Institute began this trial in 1993 and will follow the participants for 16 years. Results are expected in 2006 (14).

One issue on which most experts and professional organizations agree is that the patient and his physician should make the choice whether or not that individual should be screened. The benefits, risks, and limitations need to be presented to the patient so that he can make the choice based on current knowledge in this field.

Table 3
Screening Recommendations by Professional Review Group

<table>
<thead>
<tr>
<th>Reviewing Organization</th>
<th>Recommended Routine Population Screening PSA</th>
<th>DRE</th>
<th>Screening Recommendations For Each Patient</th>
<th>Counseling Content</th>
<th>Individualize Decision to Screen?</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Cancer Society</td>
<td>Yes</td>
<td>Yes</td>
<td>PSA and DRE should be offered annually at age 50 for men who have at least a 10-year life expectancy. High-risk men (African-American men, or men with two or more affected first-degree relatives) should be offered screening at age 45</td>
<td>Risks and benefits of screening</td>
<td>Yes</td>
</tr>
<tr>
<td>American College of Physicians</td>
<td>No</td>
<td>No</td>
<td>Recommends against the use of routine population screening</td>
<td>Risks and benefits of screening</td>
<td>Yes</td>
</tr>
<tr>
<td>American College of Preventive Medicine</td>
<td>No</td>
<td>No</td>
<td>Recommends against the use of routine population screening</td>
<td>Risks and benefits of screening</td>
<td>Yes</td>
</tr>
<tr>
<td>American Urological Association</td>
<td>Yes</td>
<td>Yes</td>
<td>Men age 50 or more who have a life expectancy of 10 or more years. Men age 40-50 with a family history; African-American men with anticipated life expectancy of 10 or more years</td>
<td>Risks and benefits of screening</td>
<td>Yes</td>
</tr>
<tr>
<td>Canadian Task Force on Preventive Health Care</td>
<td>No</td>
<td>No</td>
<td>Recommends against the use of routine population screening</td>
<td>Risks and benefits of screening</td>
<td>Yes</td>
</tr>
<tr>
<td>U.S. Preventive Services Task Force</td>
<td>No</td>
<td>No</td>
<td>Recommends against the use of routine population screening</td>
<td>Risks and benefits of screening</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The Benefits, Risks, and Complications of Routine Screening

Below is a list of the benefits, risks and complications associated with the PSA test and prostate cancer screening.

**Potential benefits of PSA testing**
- Early detection and treatment may save lives and avoid future cancer-related illness.
- Screening can detect cancers at a more favorable treatment stage.
- PSA testing detects more tumors than DRE, and detects them earlier.
- PSA testing (and DRE) are easy to do and relatively inexpensive.
- PSA testing can be used to monitor cancer once it has been detected.

**Limitations/risks of the PSA test**
- Screening does not always save lives. PSA testing may detect slow-growing or painless cancers that may never cause illness or death. It also may not help a man whose cancer has already spread to other parts of the body before it is detected.
- Early detection may lead to unnecessary treatment, treatment complications, and reduced quality of life.
- Screening can lead to a 7 percent to 31 percent chance of a biopsy and the discomfort associated with this diagnostic procedure.
- Most men with elevated PSA values do not have cancer: In men age 50 years and older, the statistics are 13 out of 100 black men and nine out of 100 white men will have an elevated PSA. Of these, eight black and six white men will have false positives and only five black men and three white will have cancer.
- Results such as these can lead to unnecessary medical procedures, significant financial costs, and extreme anxiety for a man and his family.
- False negative test results occur when the PSA level is in the normal range, even though cancer is actually present. This test result can promote a false sense of health when a cancer is actually present.
- In most cases, abnormal test results cause anxiety and stress for the patient and his relatives.

**Complications of treatment**
- Men with cancer confined to the prostate gland, who choose to have their prostate removed, have a greater than 50 percent chance of permanent sexual dysfunction (impotence) after the removal. Twenty percent to 30 percent of these men also will have some degree of urinary incontinence, and 0.5 percent to 1.0 percent have a chance of death after the prostate removal.
- Radiotherapy, or treatment with radiation, has an approximate risk of 10 percent for bowel dysfunction.


Current Knowledge, Attitudes and Practices

Public and professional awareness and behaviors must be considered when attempting to reduce the rate of prostate cancer incidence and mortality among Texans. Data collected through surveys sponsored by the Texas Department of Health, Texas Cancer Council, and Texas Medical Association provide insights into the “state of the state” in prostate cancer knowledge, attitudes, and practices.

**Public**
The TDH Behavioral Risk Factor Surveillance System (BRFSS) performed a supplemental survey on prostate cancer from November 1999 through January 2000, collecting data regarding public opinion and awareness of prostate cancer from 1,006 Texas men (See Appendix B for BRFSS survey questions). Nearly all (91 percent) of the men surveyed knew that age was a risk factor for prostate cancer. Seventy-three percent of respondents knew that family history was a risk factor, but only half of African-American men surveyed knew this fact. Also, the majority (59 percent) of African-American respondents did not know that race/ethnicity was a risk factor and did not consider themselves to be at high risk for prostate cancer.

Regarding the PSA test, most (64 percent) of the respondents had heard of the test, with Hispanic men having the least knowledge of it (37 percent). Out of those African-American respondents who had knowledge of the test, only 31 percent were advised to take
the test. In fact, only 23 percent of African-American men reported physician counseling on the risks and benefits of PSA screening for early detection of prostate cancer, followed by Hispanic men at 15 percent.

With reference to the age of the men surveyed, 78 percent of the respondents ages 65-74 were familiar with the PSA test, while 59 percent of men ages 40-64 were aware of the test. Eighty percent of the men 75 and older and 47 percent of the men ages 40-64 had been advised to take the test. Eighty-six percent of the men in the oldest age group were likely to have had the test, while just over half (55 percent) of men aged 40 to 64 had been tested (15).

Only 35 percent of respondents reported having discussed with their physicians the risks/benefits and differences of medical opinion about PSA screening. These discussions should include: (a) that it is unknown whether or not PSA screening will lower the number of deaths from prostate cancer; (b) that false positive and false negative PSA tests can occur; and (c) prostate cancers discovered by PSA can have a slow growth.

In an earlier BRFSS survey performed in Texas in 1997, 91 percent of respondents aged 40 or older who had a PSA test had the test at the recommendation of their physician. There was also a direct correlation between both public awareness of available tests and physician counseling, and who had taken the PSA test. These data suggest the need for ongoing surveillance of who is tested using the PSA test and if increased testing could substantially affect the outcome of prostate cancer incidence and mortality (16).

The implications of these findings are that a large percentage of the public is NOT well educated about prostate cancer, its risk factors, and the relative risks and benefits of early detection. These data support the need for stronger patient education initiatives, especially in the age of managed care when there may not be adequate opportunities for such interactions during the normal doctor-patient encounter. It may be that insurance providers need to become more involved in promoting patient education about prostate cancer prevention, screening, and early detection.

**Physicians**

Since 1995, the Chronic Disease Prevention and Control Research Center at Baylor College of Medicine has conducted Talk Back Against Cancer Surveys to examine the changing practices, attitudes, and oncology education needs of physicians in Texas. These surveys have been funded by the Texas Cancer Council through the Physician Oncology Education Program of the Texas Medical Association (See Appendix B for sample Talk Back survey). They provide not only current data, but also longitudinal comparison of physician knowledge, attitudes and practices over time. The POEP uses survey results to guide the development of educational materials and shares these results with policy-makers and directors of continuing medical education programs across the state.

**Results**

Looking back over Talk Back survey questions related to prostate cancer since 1995, results of the longitudinal surveys have not shown statistically significant changes over time. The large majority of Texas primary care physicians support the more aggressive levels of prostate cancer screening supported by professional, education, and advocacy groups such as the American Cancer Society, American Urological Association, US TOO! International Inc. and Prostate Action. Among responding physicians, 50 percent begin to offer prostate cancer screening to asymptomatic men age 40-49 and 48 percent do so for age 50-59; 80 percent perform both digital rectal exam (DRE) and prostate-specific antigen (PSA) blood test for prostate cancer screening. It is noteworthy that practicing Texas physicians thus seem to ignore more conservative prostate cancer screening recommendations and apparently do not share the view of the U.S. Preventive Services Task Force guidelines, which recommend against routine population screening.

One Talk Back survey in particular was designed to compare primary care physician (PCP) and urologist prostate cancer screening knowledge, attitudes, and practices. It was purposefully scheduled for November-December 1999, to be conducted at the same time as the BRFSS survey. While there was considerable agreement between the PCPs and urologists, there also were statistically significant areas of difference regarding prevention, screening, and post-treatment follow-up. PCPs (17 percent to 45 percent) were less likely than urologists (44 percent to 70 percent) to recommend low fat diet, selenium, or vitamin E as measures to prevent prostate cancer.

For asymptomatic patients, fewer PCPs (87 percent) than urologists (97 percent) recommended screening for age 50-59, while many more PCPs (97 percent) than urologists (18 percent) recommended screening for age 80+. PCPs (18 percent to 72 percent) were more likely than urologists (10 percent to 24 percent) to recommend screening for asymptomatic men with a history of
benign prostatic hypertrophy, prostatitis, sexually transmitted diseases, vasectomy, and smoking. However, for asymptomatic African-American men - known to be at higher risk than other racial/ethnic groups - PCPs (71 percent) were less likely to recommend screening than were urologists (98 percent). PCPs (87 percent) also were less likely than urologists (99 percent) to recommend DRE in addition to PSA as part of the screening process, potentially missing those prostate cancers that do not produce PSA. PCPs and urologists also differed in what they considered normal PSA levels for post-treatment prostate cancer patients who had received radical prostatectomy (1.0 vs. 0.1) or radiation therapy (4.0 vs. 0.5) (See Appendix B for addition information and comparisons between physician and public data).

Data demonstrates that a substantial numbers of physicians are not initiating communications on prostate cancer testing with their patients, providing neither prevention education nor screening. Regardless of specific recommendations by different groups, all organizations recommend physician counseling with patients about whether or not to be screened. Research repeatedly shows that patients consider their physician to be a major resource in their health decision-making. If there is inconsistency and confusion among physicians in their counseling about screening, there will be similar inconsistency and confusion among patients and the public. It is therefore important to have an educational program that helps physicians communicate better when definitive data are still being sought. However, there is a growing sense among the public that the lack of clear answers should not deter those who understand the limits of the test and want to make their own informed decisions. There is thus a strong need for more continuing medical education among practicing physicians and more dialogue between PCPs and urologists, coordinated with improved public and patient education.

Texas Department of Health (TDH)

One of the current prostate cancer initiatives that TDH is involved in is the Prostate Cancer Advisory Committee. The Texas Legislature passed Senate Bill 1685 in 1995 which established both a Prostate Cancer Education Program (PCEP) and the Texas Prostate Cancer Task Force, now called the Prostate Cancer Advisory Committee (PCAC), to assist TDH and partner organizations in promoting prostate cancer awareness and improving education. The PCAC is composed of prostate cancer survivors, family members of survivors, physicians, educators, and cancer control professionals and is staffed by TDH. Some of the PCAC’s achievements include: assembling prostate cancer information for distribution to the public; having speakers present the most current information to the committee and the public; coordinating efforts of other organizations involved in prostate cancer prevention, detection, and treatment; and promoting Prostate Cancer Awareness Week with public speeches, brochure distribution and seminars. Future objectives include: developing new partnerships and continuing the coordination of prostate cancer efforts in the state; updating prostate cancer information and incorporating it into public literature and messages; and communicating results from surveillance of increased-risk men’s knowledge of prostate cancer to policy- makers, health care practitioners and the public. In addition to supporting the work of the PCAC, the PCEP has a Web site (www.tdh.state.tx.us/osp/prostate.htm) and toll-free telephone number (800) 242-3399 for public access to information about prostate cancer (17).

Access to and Availability of Services

Various issues influence Texans’ access to and availability of cancer screening, detection, and treatment services, primarily socio-economic status. Texas has continually ranked lowest for per capita personal income and education level. One in five Texans lives below the poverty level, and 28 percent of Texans 25 years of age or older have no high school degree. Poverty and education reduces the population’s knowledge of and access to health services. A second factor in Texas is geography. Texas has more than 260,000 square miles and is filled with sparsely populated rural areas where health care facilities are not readily available. Although Texas is a leader in cancer treatment facilities and services, these are concentrated in urban areas. In 1997, only about 7 percent of physicians declared residence in rural counties (18). Cost of services and lack of insurance also reduces the number of individuals who can be tested and treated for disease. The BFRSS reported in its aforementioned Prostate Cancer Supplemental Survey (see page 18) that 18 percent of respondents age 40 to 64 years did not have insurance. Also, 11 percent reported being unable to see a doctor because of cost (19).
Policy Issues

Nationwide
Currently, there are many issues that affect policy decision-making with regards to prostate cancer screening and treatment. As there is no documented evidence to date to contend that prostate cancer screening and early detection efforts reduce mortality and are cost-effective, it is difficult to justify routine screening for the population. The National Cancer Institute's PLCO trial is studying the benefits of prostate cancer screening, specifically with DRE and PSA; however, results are not expected until 2006. These two tests, performed in combination, have become a standard part of screening for prostate cancer and are used by most physicians today.

Currently, there are 26 states that have issued prostate cancer mandates for health insurance to cover screening. Out of those 26 mandates, several specifically cover testing for PSA and DRE. Most of the mandates specify coverage for men aged 40 to 50 and older. Some of the legislation requires insurance coverage for asymptomatic males at high risk, while others (i.e., Utah) only “encourage” coverage (20). In addition to these mandates, several states have established prostate cancer task forces (including Florida, Arizona, Arkansas, and Maryland) to oversee those respective states’ prostate cancer studies and to make decisions regarding public, legislative and health care education efforts (21, 22).

Texas
There have been several legislative acts passed in Texas regarding prostate cancer. In 1995, the Texas Legislature passed Senate Bill 1685, which created a two-part plan for prostate cancer. The first initiative was an education program intended to promote public education and awareness of prostate cancer; and the second was an advisory committee to educate the public, health care professionals, public officials and the Legislature on the most up-to-date prostate cancer information (23). In 1997, the Texas Legislature passed Senate Bill 258, which provided for insurance coverage of prostate cancer screening. Specifically, this bill provided for a physical examination of prostate cancer; a PSA test for males 50 years of age, and for males 40 years of age who have a family history of prostate cancer or another prostate cancer risk factor (24). In 1999, SB 1685 was revised by House Bill 2759 to include components in the educational strategy to reach high-risk populations in this state. Moreover, Senate Resolution No. 10, passed in 1997, established an annual awareness activity – Prostate Cancer Awareness Week – to begin after Father's Day each June; and Senate Resolution No. 17 was passed in January of 2001 to recognize September as Prostate Cancer Awareness Month (25).

Cost of Prostate Cancer in Texas

The Texas Comprehensive Cancer Control Program at TDH commissioned a report on the annual cost of cancer in Texas – the first comprehensive cost study focused exclusively on cancer in Texas, using the most current data available (1998). Estimates were calculated for the cost of all cancers combined, as well as for the four most common cancers – including prostate cancer. The total estimated annual cost of prostate cancer was more than $445 million dollars. The breakdown of that figure includes direct costs associated with screening and treatment and indirect costs related to lost opportunities for economic contributions to the state. The direct cost of addressing prostate cancer was estimated at $152 million – which included hospitalizations and facilities, inpatient services, emergency services, hospice care, and the PSA test. The cost of the PSA test was approximated at $26.7 million. Calculations of indirect costs reflected that more than 14,000 years of life were lost and lost productivity was estimated to have cost Texas $203.5 million. Prostate cancer costs account for 3.2 percent of the total annual estimated cost of cancer to Texans (26).

As the population aged 50 and older continues to increase in Texas as in the nation, the economic burden of prostate cancer treatment and years of life lost likely will increase. This increase demonstrates the need for additional research in prostate cancer prevention and appropriate screening and treatment strategies.
Treatment

There are several methods for treating prostate cancer, which vary according to the stage of the disease. The treatments include surgery, radiation therapy, hormone withdrawal therapy, and chemotherapy. A non-treatment strategy often employed is “watchful waiting.” Much controversy surrounds prostate cancer treatment, including whether or not treatment is worse than the cancer. Almost all men who are diagnosed with prostate cancer have a good chance of survival. Prostate cancer generally is slow-growing, and serious complications may not occur in the individual’s lifetime. However, men who choose to have their prostate removed, do have a 50 percent or greater chance of impotence, a 20 percent to 30 percent chance of urinary incontinence, and a 0.5 percent to 10 percent chance of death. In addition, radiation therapy has an approximate risk of 10 percent for bowel dysfunction. These factors help explain why some physicians would suggest watching the cancer to see how it progresses rather than formulate a treatment plan upon diagnosis.

Nevertheless, a significant number of men will die from prostate cancer, and treatment is favorable if the cancer is aggressive and would likely shorten the natural lifespan. The natural history of the cancer is not known and current diagnostic methods do not differentiate among slow- and fast-growing types. Thus, physicians and their patients must, at present, choose treatment based on the details and findings of each case after thoughtful, informed consideration and upon counseling about the options.
Current Prostate Cancer Resources
Current Prostate Cancer Resources

This section contains an overview of state and nationwide prostate cancer resources. In addition to those listed, your local physician or health care professional should be used as a resource, as well as local and county health departments.

American Cancer Society, Local Units and the Texas Division (ACS)
The American Cancer Society is a national, community-based voluntary health organization committed to fighting cancer through balanced programs of research, education, patient service, advocacy, and rehabilitation. It is composed of the national society and chartered divisions with over 3,400 local offices, including the Texas Division headquarters in Austin and the 26 local offices in Texas.

The organization offers the Cancer Survivors Network, the first of its kind, a telephone and Internet support service for cancer survivors created by cancer survivors. Also, ACS has a National Cancer Information Center, which includes early detection of prostate cancer, diagnosis and staging, treatment options, treatment facilities and health care providers, community resources, and survivorship issues information. The Community Resources Database is an ACS resource that provides information about ongoing programs and services that serve cancer patients and people affected by cancer.

The American Cancer Society offers many prostate cancer information, education and support services nationwide and in Texas. A few of the challenges of prostate cancer to be addressed by the Texas Division are to focus on barriers that prevent testing, support of the Texas Cancer Registry, promoting awareness of prevention trials and research, and increasing awareness of treatment services. One such program focusing on these issues is the Man To Man program which provides patient education, support and awareness of prostate cancer. Also, ACS collaborates on the Let’s Talk About It program with 100 Black Men of America, Inc. to promote the message about prostate health and prostate cancer. For information on any of ACS’s programs, contact:

American Cancer Society
(800) ACS-2345
www.cancer.org

American Foundation for Urologic Disease (AFUD)
The American Foundation for Urologic Disease is a national organization committed to the prevention and cure of urologic disease. With the help of its corporate, foundation and individual membership program, it sponsors such services as the Prostate Cancer Support Network, Prostate Health Month and a Prostate Cancer Resource Guide. For information, contact:

American Foundation for Urologic Disease
1128 N. Charles St., #401
Baltimore, MD 21201-5559
(800) 242-2383
www.afud.org
American Urological Association (AUA)
The American Urological Association is an educational non-profit organization formed in 1900 by urologists. The AUA provides a wide range of services, including publications, AUA meeting, continuing medical education, and health policy advocacy. Its aim is to promote the highest standards of urological clinical care through education, research and in the formulation of health care policy. The AUA provides Find A Urologist, an online referral service for patients to use when looking for a urologist and has just completed a new brochure dedicated to prostate cancer. For information, contact:

American Urological Association
Headquarters Office
1120 N. Charles Street
Baltimore, MD 21201
(410) 727-1100
www.auanet.org

Baylor College of Medicine (BCM)
Baylor College of Medicine was founded in 1900 and has grown into a medical institution that is internationally respected for excellence in education, research and patient care. Since 1969, the college has received state funding under a legislative partnership, which provides physician training for Texas residents. Baylor has affiliations with seven Houston area hospitals and participates in several health care programs for high school students around the state.

Baylor is home of the Matsunaga-Conte Prostate Specialized Program of Research Excellence (SPORE). The SPORE has been funded since 1992 by the National Cancer Institute (NCI) to conduct translational research in prostate cancer, ranging from basic laboratory science to clinical trials to community outreach targeting high-risk populations such as African-American men.

The Scott Department of Urology also is home to the Baylor Prostate Center, which conducts ongoing community-based education and screening studies, such as the NCI SELECT trial and other federal and industry-sponsored clinical trials. With more than 800 newly diagnosed prostate cancer patients evaluated in the Baylor-affiliated hospitals each year, the Scott Department of Urology faculty, fellows and trainees participate in a wide range prostate cancer care. For information, contact:

Scott Department of Urology
Baylor College of Medicine
6560 Fannin St., Suite 2100
Houston, TX 77030
(713) 798-6354
www.urol.bcm.tmc.edu

Cancer Consortium of El Paso
The Cancer Consortium of El Paso is an association of public and private organizations devoted to developing community-based strategies to educate and empower the community and individuals about cancer; to offering assistance to underserved, uninsured clients to obtain early detection and diagnosis; and to acting as advocates for the needs of these constituents. It has sponsored events such as “Boy’s Night Out” to promote awareness concerning early detection and annual screening for men’s health care, focusing on prostate, testicular, and colorectal cancers. For information, contact:

Cancer Consortium of El Paso
6024 Gateway East, Suite 2A
El Paso, TX 79905-202
(915) 771-6305
**Cancer Gateway of Texas**

Overseen by the Texas Cancer Data Center, the Cancer Gateway of Texas provides a comprehensive list of cancer-related information, resources and publications on the Internet. The Texas Cancer Council funds an evaluation committee to ensure that specific link selection criteria assessing the overall quality and usefulness of the information are met. Access to the informative links is organized by both cancer topic and cancer type. The links are to Texas and national organizations and private agencies that provide information on all types of cancer information and services. For information, contact:

Cancer Gateway of Texas  
www.cancergateway.org

**Cancer Information Service (CIS)**

The Cancer Information Service is the National Cancer Institute’s (NCI) connection to the public with regional offices throughout United States. It serves the public, and health professionals and their organizations, providing them with the most current cancer information using NCI’s expansive resource base. Two-thirds of the partners serve minority populations and three-fourths aid medically underserved areas. Questions are answered by calling a toll-free number, with calls in Texas automatically reverted to The University of Texas M.D. Anderson Cancer Center in Houston. In 1996, 28,000 calls were received regarding prostate cancer, making the second leading cancer concern among callers after breast cancer. For information, contact:

Cancer Information Service  
(800) 4-CANCER  
www.cis.nci.nih.gov

**Cancer Research Foundation of America (CRFA)**

The Cancer Research Foundation of America is a national, non-profit health foundation committed to the prevention and early detection of cancer through scientific research and education. It concentrates its efforts and resources on cancers, including prostate cancer, that can be prevented through lifestyle changes or detected and treated in their early stages. For more information, contact:

Cancer Research Foundation of America  
1600 Duke St., Suite 110  
Alexandria, VA 22314  
(703) 836-4412  
www.preventcancer.org

**Cancer Therapy & Research Center (CTRC)**

The Cancer Therapy & Research Center is a non-profit, multidisciplinary, outpatient clinic and research center committed to the prevention, treatment and cure of cancer. The center was moved to San Antonio in 1981 and is conducting cancer treatment and prevention trials throughout the United States, Puerto Rico, and Canada. Among many prostate cancer services, the CTRC sponsors free or low-cost prostate cancer screenings held over three evenings during Prostate Cancer Awareness Week in September. The screening includes DRE and PSA testing. For information, contact:

Cancer Therapy & Research Center  
(800) 340-CTRC  
www.ctrc.saci.org

**Cap Cure**

Cap Cure is a private organization that funds prostate cancer research with help from private industry, the patient advocacy community, and government research institutions. With the assistance of survivors, scientists, and sponsors, Cap Cure promotes collaboration to speed the process of discovery. One of the many services the organization provides is details on current prostate cancer clinical trials and contact information. Trials can be viewed online by treatment or location. For information, contact:

Cap Cure  
(800) 757-2873  
www.capcure.org
Centers for Disease Control and Prevention (CDC)
The Centers for Disease Control and Prevention is the lead federal agency for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of all Americans. It promotes partnerships with other health organizations, collects and analyzes data, promotes public health policies, and provides training. In 2001, the CDC was awarded $11.1 million for prostate cancer activities to fund such organizations as the Texas Department of Health and the Comprehensive Cancer Control Coalition. Prostate cancer information and information on the CDC's prostate cancer activities can be assessed on their Web site. CDC resources include a fact sheet, national and state data, and prostate cancer news. For information, contact:

CDC/DCPC
4770 Buford Hwy., NEMS K64
Atlanta, GA 30341
(888) 842-6355
www.cdc.gov

CRISP (Computer Retrieval of Information on Scientific Projects)
CRISP (Computer Retrieval of Information on Scientific Projects) is a searchable database of federally funded biomedical research projects conducted at universities, hospitals, and other research institutions. The database, maintained by the Office of Extramural Research at the National Institutes of Health, includes projects funded by the National Institutes of Health (NIH), Substance Abuse and Mental Health Services (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC), Agency for Health Care Research and Quality (AHRQ), and Office of Assistant Secretary of Health (OASH). Users, including the public, can use the CRISP interface to search for scientific concepts, emerging trends and techniques, or identify specific projects and/or investigators. Users are able to search by state and identify the extent of ongoing research in prostate cancer in Texas.

crisp.cit.nih.gov

Harrington Cancer Center
The Don and Sybil Harrington Cancer Center is a freestanding, not-for-profit, ambulatory cancer center serving patients throughout the Texas Panhandle, eastern New Mexico, parts of Oklahoma, southeast Colorado and southwest Kansas. The Harrington Cancer Center was built to serve the needs of cancer patients who formerly had to travel hundreds of miles for cancer treatment. Its mission is to reduce the burden of cancer and blood diseases through patient care, cancer education, and research. For information, contact:

Harrington Cancer Center
1500 Wallace Blvd.
Amarillo, TX 79106
(806) 359-HOPE (4673)
www.harringtoncc.org

Hendrick Health System
The Hendrick Health System in Abilene, Texas, is one of seven health care institutions affiliated with the Baptist General Convention of Texas, and it serves as the hub for health care services in the Texas Midwest. In conjunction with The University of Texas M.D. Anderson Cancer Outreach, the center features state-of-the-art equipment in a setting designed to assist patients in their fight to prevail over cancer. It also offers a telemedicine link with M.D. Anderson physicians. For information, contact:

Hendrick Health System
1242 N. 19th St.
Abilene, TX 79601
(915) 670-2000
www.hendrickhealth.org
**Intercultural Cancer Council (ICC)**

The Intercultural Cancer Council promotes policies, programs, partnerships, and research to eliminate the unequal burden of cancer among racial and ethnic minorities and medically underserved populations in the United States and its associated territories. ICC sponsors the Biennial Symposium designed to summarize the current scientific information available on specific cancers, to discuss importance of prevention and detection, to illustrate how to set up cancer control programs in communities, and to outline cancer services and materials. Throughout the year, ICC sponsors symposia and conferences that address issues on specific cancers, including prostate cancer, for the public and professionals. For information, contact:

Intercultural Cancer Council  
PMB-C1720 Dryden  
Houston, TX 77030  
(713) 798.4617  
www.iccnetwork.org

**Joe Arrington Cancer Treatment and Research Center (JACC)**

The Joe Arrington Cancer Treatment and Research Center is located in Lubbock and is a partnered with the Covenant Health System and St. Joseph Health System. The primary purpose of the partnership is to provide comprehensive, state-of-the-art diagnostic, therapeutic and support services in West Texas for patients with cancer or blood disorders. The center offers cancer screening and cancer education to patients, communities, as well as professional and staff education. For information, contact:

Joe Arrington Cancer Treatment and Research Center  
4101 22nd Place  
Lubbock, TX 79410  
(806) 725-8000  
www.jacc.org

**Let’s Talk About It**

Let’s Talk About It is a community-based prostate cancer awareness and education program for African-American men developed collaboratively by the American Cancer Society and 100 Black Men of America, Inc. Other groups who are involved include Phi Beta Sigma, Kappa Alpha Psi, Alpha Phi Alpha, and Omega Psi Phi fraternities, as well as local faith-based organizations, golf clubs, and other community service and social groups. For information, contact:

American Cancer Society  
(800) ACS-2345  
www.cancer.org

**Men’s Health Network**

The Men’s Health Network is a not-for-profit educational organization consisting of physicians, researchers, public health workers, individuals and other health professionals. The organization’s main focus is men’s and boy’s health and well-being and one of its initiatives is the understanding of prostate cancer causes, prevention, effective diagnosis and treatment. For information, contact:

Men’s Health Network  
P.O. Box 75972  
Washington, DC 20013  
(202) 543-MHN-1  
www.menshealthnetwork.org
National Cancer Institute (NCI)
The National Cancer Institute is one of the federally-funded institutes that comprise the National Institutes of Health. It supports and conducts innovative research in cancer biology, causation, prevention, detection, treatment, and survivorship by funding research across the nation and the world. It also sponsors clinical trials, development and use of new technologies, training and career development of cancer researchers, and methods to measure and monitor cancer prevention and care. It provides access to CancerNet and publishes What You Need to Know about Prostate Cancer – comprehensive resources for prostate cancer prevention, screening, detection and treatment information. For information, contact:

NCI Public Inquiries Office
Building 31, Room 10A31
31 Center Dr., MSC 2580
Bethesda, MD 20892-2580
(301) 435-3848
www.cancer.gov

National Institutes of Health (NIH)
The National Institutes of Health is one of the eight health agencies of the Public Health Services which, in turn, is part of the U.S. Department of Health and Human Services. It is comprised of 27 institutes and centers that lead the world in medical research and is the focus of federal medical research in the nation. NIH conducts research; supports non-federal research at universities, medical schools, hospitals, and research institutions across the country; trains research investigators; and encourages communication of medical information. It features MEDLINEplus and Healthfinder®, which are complete databases of prostate cancer information, and provides access to information of thousands on clinical studies on prostate cancer. For information, contact:

National Cancer Institute
(800) 4-CANCER, (800) 422-6237, (800) 332-8615 (TTY)
www.nih.gov

National Prostate Cancer Coalition (NPCC)
The National Prostate Cancer Coalition is primarily a patient and family support, information and advocacy organization. It publishes a free Web-based newsletter several times a week, the “SmartBrief”, which includes links to current policy issues, scientific inquiries and advances, and clinical trials. Each issue has a personal story from a survivor and/or family member. For information, or to sign up for the free newsletter, contact:

National Prostate Cancer Coalition
(888) 245-9455
www.pccoalition.org

Nurse Oncology Education Program (NOEP)
The Nurse Oncology Education Program is a statewide cancer education program funded by the Texas Cancer Council and is a project of the Texas Nurses Foundation. The program is led by a steering committee of health care professionals who represent 13 of the state’s community organizations, foundations and medical schools; also, it includes program staff members and volunteers. The primary focus of the NOEP is to provide cancer education to nurses through a variety of cancer education resources that focus on cancer prevention, detection, and treatment. For information, contact:

Nurse Oncology Education Program
7600 Burnet Rd., Suite 440
Austin, TX 78757
(800) 515-6770, (512) 467-2803
www.noep.org
Physician Oncology Education Program (POEP)
The Physician Oncology Education Program was formed by the Texas Medical Association to carry out the recommendations of the Texas Cancer Plan and is primarily funded by the Texas Cancer Council. The POEP is dedicated to providing cancer resources and education to primary care physicians throughout the state of Texas. The POEP includes a steering committee of expert individuals, which represent many health organizations and institutions statewide, as well as a full-time professional staff. The POEP offers a prostate cancer self-study module with 35mm slides that includes education on prostate cancer statistics, screening, detection, and treatment. In addition, POEP makes available a Speaker’s Bureau, consisting of more than 100 cancer experts from across the state to speak to health care professionals about cancer. For information, contact:

Physician Oncology Education Program  
401 W 15th St.  
Austin, TX 78701-1680  
(800) 880-1300, ext. 1672  
www.poep.org

Prostate Cancer Research Institute (PCRI)
The Prostate Cancer Research Institute was founded in 1996 by medical oncologists Stephen B. Strum and Mark C. Scholz, with support from the Freeman Hospitals Foundation. Drs. Strum and Scholz are internationally recognized prostate cancer specialists. PCRI’s highest priority is to improve the care of men with prostate cancer and increase both quality and quantity of life through educating patients and their families about prostate cancer and its treatment. For information, contact:

Prostate Cancer Research Institute  
5777 W. Century Blvd., Suite 885  
Los Angeles, CA 90045  
(310) 743-2110  
www.prostate-cancer.org

Redes En Acción
Redes En Acción was formed in 1992 when the National Hispanic Leadership Initiative on Cancer: En Acción launched the first comprehensive assessment of cancer risk factors among Hispanic men and women funded by the National Cancer Institute. Redes publishes the Redes Report which disseminates relevant and helpful information about cancer issues and reports on “role models” engaged in research and professional and public education related to those cancer issues affecting Latinos. Regional Network Center staffs around the country have raised awareness of the program and its objectives, particularly in the area of Latino cancer education, through a variety of regional and local community events. Its South Central Regional Network Center is located in San Antonio and offers community events located throughout Texas. For information on activities in Texas, contact:

Martha A. Medrano, MD, MPH  
The University of Texas Health Science Center at San Antonio  
4201 Medical Dr, Suite 240  
San Antonio, TX 78229  
(210) 567-7785, (210) 567-7772  
MEDRANOM@UTHSCSA.EDU  
www.redesenaccion.org

San Antonio Cancer Institute (SACI)
The San Antonio Cancer Institute represents the combined cancer research programs of the Cancer Therapy and Research Center (CTRC) and The University of Texas Health Science Center at San Antonio (UTHSCSA). The collaborations cultivated by this institute incorporate the outpatient cancer services and clinical research supported by the CTRC with the cancer-related scientific and academic programs of the UTHSCSA. The institute has initiated a Prostate Cancer Program which focuses on patients at risk and those with localized and advanced prostate cancer. For information, contact:


San Antonio Cancer Institute
8122 Datapoint Dr.
San Antonio, TX 78229
(210) 616-5590
www.saci.org

San Antonio Center of Biomarkers of Risk for Prostate Cancer (SABOR)
The San Antonio Center of Biomarkers of Risk for Prostate Cancer trial was created to look for molecular signatures that indicate a man's likelihood of developing prostate cancer, as well as metastasis. Screenings are held throughout the city at clinics in the University Health System, the South Texas Veterans Health Care System, Wilford Hall Medical Center, Brooke Army Medical Center, the Cancer Therapy and Research Center, the University Physicians Group, the Barrio Comprehensive Family Health Center, and the Ella Austin Health Center. For information, contact:

The University of Texas Health Science Center at San Antonio/SABOR
7703 Floyd Curl Dr.
San Antonio, TX 78229-3900
(210) 567-2056
www.uthscsa.edu

Scott and White Memorial Hospital and Clinic
The Scott and White Memorial Hospital and Clinic is one of the largest multi-specialty groups in the United States. Its goal is to provide personalized, comprehensive, high-quality health care enhanced by medical education and research. It offers patient care, clinical centers, clinical education programs, and institutional resources. It also offers cancer prevention and care support groups, information on specific cancers and research opportunities. For information, contact:

Scott and White Memorial Hospital and Clinic
2401 S. 31st St.
Temple, TX 76508
(254) 724-2111
www.sw.org

Selenium and Vitamin E Cancer Prevention Trial (SELECT), National Cancer Institute
The Selenium and Vitamin E Cancer Prevention Trial is the largest prostate cancer prevention trial to date and will determine whether these two dietary supplements can protect against prostate cancer. The study will recruit more than 32,000 men over the age of 55 at more than 400 study sites in the United States, Puerto Rico and Canada. SELECT is funded by the National Cancer Institute and coordinated by the Southwest Oncology Group (SWOG). The SWOG is an adult cancer clinical trials organization that consists of almost 4,000 of the nation's leading physicians at 283 institutions throughout the United States and Canada - with over 20 sites in the state of Texas. For information, contact:

National Cancer Institute
(800) 4-CANCER
www.cancer.gov/clinical_trials

Shannon Health System
The Shannon Health System provides a comprehensive program to patients and their families. It offers a complete range of services for patients such as treatment, cancer case managers, support groups, cancer conferences, and its own cancer registry. It has served the San Angelo and West Texas areas since the 1930s. For information, contact:

Shannon Health System
(800) 530-4143
www.shannonhealth.com
Texas A&M University System Health Science Center (A&M System HSC)
The Texas A&M University System Health Science Center brings together three key elements of American higher education: (1) the land-grant university; (2) health professions education; and (3) a premier university research enterprise. Texas A&M Health Science Center includes the College of Medicine, Graduate School of Biomedical Sciences, Institute of Biosciences and Technology and the School of Rural Public Health. Its mission is the education of health-related professionals and scientists, research and scholarly activity, and public service. The System offers specialty researchers in prostate cancer and prostate cancer education for health care providers. For more information, contact:

The Texas A&M University System Health Science Center  
College of Medicine  
Joe H. Reynolds Medical Building, Suite 104  
College Station, TX 77843-1114  
(979) 458-1485  
tamushsc.tamu.edu

Texas Cancer Council (TCC)
The Texas Cancer Council was created by the Texas Legislature in 1985 to reduce the cancer problem in the state. Since its creation, the Council has forged public and private relationships and provided substantial funding to state programs for the prevention and control of cancer. It constructed the Texas Cancer Plan, which is a comprehensive, statewide blueprint for meeting the growing challenge of cancer control among all sectors of the state – public, private and volunteer. It identifies a set of goals and strategies for reducing the impact of cancer by educating the public, enhancing health care education, collecting and analyzing data, and increasing accessibility to services. The Texas Cancer Plan is the overarching approach to cancer control, while this and other cancer site-specific plans are more detailed adjuncts.

Currently, the TCC has two prostate cancer projects focusing on minority populations. One is Promesa Salud operated out of the Planned Parenthood Association of Cameron and Willacy counties. Its focus is reaching men over the age of 50 and motivating them to have screening. Another is the Prostate Cancer Outreach and Screening Services in Wichita Falls at the North Central Texas Community Health Care Center, Inc. Its goal is to develop a prostate cancer outreach, education, and screening program for medically underserved communities in eight North Texas counties.

Among other projects, the council funds the Physician Oncology Education Program and the Nurse Oncology Education Program as well as many other programs which concentrate on public and health care provider education, early detection and information, access and referral to services. For information, contact:

Texas Cancer Council  
P.O. Box 12097  
Austin, TX 78711  
(512) 463-3190  
www.tcc.state.tx.us

Texas Cancer Data Center
The Texas Cancer Data Center is an information service funded by the Texas Cancer Council that provides data on health professionals, health facilities, demographics and statistics and community resources free of charge on the Internet. Anyone can search the database and locate statistical information on Texas physicians, population, mortality rates and incidences. The center also contains links to resources for all types of cancer services. For information, contact:

Texas Cancer Data Center  
1515 Holcombe Blvd. 573  
Houston, TX 77030-4009  
(713) 792-2277  
wwwtxcancer.org
Texas Cooperative Extension
Texas Cooperative Extension agents offer educational programs and other activities to improve people’s knowledge regarding cancer early detection and risk reduction. County agents are available to assist with community programming to raise awareness regarding prostate and other cancers in all 254 Texas counties. For more information, contact:

Texas Cooperative Extension
311 History Building
2251 TAMU
College Station, TX 77843-2251
(979) 845-3850
fcs.tamu.edu/health

Texas Department of Health (TDH)
The Texas Department of Health is a multi-tiered organization committed to improving the health of all Texans. Within TDH is located the Texas Cancer Registry. The Registry’s primary functions include maintaining a statewide cancer incidence reporting system; monitoring data accuracy, reliability and completeness through systematic quality assurance procedures; analyzing cancer incidence and mortality data; disseminating cancer information and facilitating studies related to cancer prevention and control. Another TDH program, the Texas Behavioral Risk Factor Surveillance System, initiated in 1987, is a federally funded telephone survey conducted on a monthly basis of 1,500 randomly selected adult Texans to collect data on lifestyle risk factors contributing to the leading causes of death and chronic diseases. In addition, TDH works with participating City and County Health Departments that can provide materials and information about prostate cancer programs and services in local areas.

TDH also staffs the Texas Comprehensive Cancer Control Program, one of six sites in the nation funded by the Centers for Disease Control and Prevention to further cancer control. This program conducts activities and supports the Texas Comprehensive Cancer Control Coalition – a voluntary group that is comprised of organizations in the state involved in some or many aspects of cancer control. The coalition provides leadership for and coordination of statewide cancer control efforts centered around support for and increasing the use of the Texas Cancer Plan. A fairly new program created by the TDH upon the passing of Senate Bill 1685 is the Prostate Cancer Education Program and the related State Board of Health’s Prostate Cancer Advisory Committee. The committee’s mission is to help TDH and its partner organizations educate and raise public awareness about the disease. For information, contact:

Texas Department of Health
1100 West 49th St.
Austin, TX 78756-31991
(888) 963-7111
www.tdh.state.tx.us

(For information on the Texas Comprehensive Cancer Control Program or Coalition, please call (512) 458-7534 or visit the Web site at www.tdh.state.tx.us/tcccp)

(For information on the Prostate Cancer Education Program or Advisory Committee, please call (512) 458-7534 or visit the Web site at www.tdh.state.tx.us/osp/prostate.htm)

(For information on local County and City Health Departments, please call toll free (888) 963-7111 or (512) 458-7111 or visit the Web site at www.tdh.state.tx.us)
Texas Tech University Health Sciences Center (TTUHSC)
The Texas Tech University Health Sciences Center serves West Texas with four sites in Lubbock, Amarillo, El Paso, and Odessa. The center’s major objectives are quality education and the development of academic, research, patient care, and community service programs to meet the needs of the 108 counties in West Texas. For information, contact:

Texas Tech University Health Sciences Center
www.ttuhscc.edu

Texas Urological Society (TUS)
The Texas Urological Society’s mission is to represent the interests of Texas urologists in a variety of arenas (i.e., the Texas Legislature, Texas Medical Association, Medicare Carrier Advisory Committee Trailblazers, insurance policy boards, etc.). The society sponsors various programs throughout the year designed to identify the key issues and challenges facing urologists and urology residents throughout the state. It focuses on furthering continued education of its members, improving the professional standards of urology, promoting cooperation between the disciplines interested in urology, and advising other professional groups concerning urology. For information, contact:

Texas Urological Society
401 W. 15th St.
Austin, TX 78701-1680
(512) 370-1513
www.texasurologist.org

University of North Texas Health Science Center at Fort Worth (UNTHSC)
The University of North Texas Health Science Center at Fort Worth is one of the nation’s leading academic medical centers providing education, research and patient care. It is home to the Institute for Cancer Research, where cutting edge research into the various causes and forms of cancer is being conducted, and the Center for Epidemiologic and Disease Prevention Research at the Institute for Public Health Research, where public health researchers study the factors leading to cancer. The institution’s School of Public Health also is engaged in prevention and public education endeavors related to cancer.
For more information, contact:

The University of North Texas Health Science Center
3500 Camp Bowie Blvd.,
Fort Worth, TX 76107
(817) 735-2113
www.hsc.unt.edu

The University of Texas Health Science Center at San Antonio (UTHSCSA)
The University of Texas Health Science Center at San Antonio is a center for biomedical education, training, and research in South Texas. It is a significant provider of health care to the medically indigent of the region. The National Cancer Institute has approved it for patient trials of new anti-cancer drugs. For information, contact:

The University of Texas Health Science Center at San Antonio
7703 Floyd Curl Dr.
San Antonio, TX 78229-3900
(210) 567-2056
www.uthscsa
The University of Texas Medical Branch (UTMB)
The University of Texas Medical Branch at Galveston was created in 1881 by the Texas Legislature. A network of six on-site hospitals, plus the adjacent Shriners Burns Hospital, provide a wide range of clinical training opportunities for students and residents. Services at UTMB range from primary care to the specialized diagnostic and treatment resources found only at the nation's largest teaching, research and clinical care centers. Cancer research is a vital program at UTMB. For information, contact:

The University of Texas Medical Branch at Galveston
301 University Blvd.
Galveston, TX 77555-0802
www.utmb.edu

The University of Texas M.D. Anderson Cancer Center
The University of Texas M.D. Anderson Cancer Center was designated by the National Cancer Act of 1971 as one of the first three comprehensive cancer centers. The center is one of the most respected and best cancer treatment facilities in the world with a goal to eliminate cancer. It is one of the sites for the SELECT trial and has recently been awarded a $13 million SPORE grant for prostate cancer research. For information, contact:

The University of Texas M.D. Anderson Cancer Center
1515 Holcombe Blvd.
Houston, TX 77030
(800) 392-1611
www.mdanderson.org

The University of Texas Southwestern Medical Center at Dallas
The University of Texas Southwestern Medical Center at Dallas was established in 1943 as Southwestern Medical College by the Southwestern Medical Foundation. UT Southwestern is made up of three degree-granting institutions: Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences and Southwestern Allied Health Sciences School that train approximately 3,000 medical, graduate and allied health students, residents and postdoctoral fellows each year. The UT Southwestern campus is also home to four outstanding hospitals: Zale Lipshy University Hospital, St. Paul University Hospital, Parkland Memorial Hospital and Children's Medical Center of Dallas. The Center is currently participating in the SELECT Trial for prostate cancer. In addition, offers prostate cancer education of health professionals and scientists; biomedical research; and clinical care for the sick and preventive care for the healthy. For more information, contact:

The University of Texas Southwestern Medical Center at Dallas
5323 Harry Hines Blvd.
Dallas, TX 75390
(214) 648-3111
www.utsouthwestern.edu

US TOO! International Inc.
US TOO! International Inc. is a prostate cancer support group founded as a charitable organization in Chicago in 1990. It is the largest prostate cancer support group in the world. It directs its efforts toward hands-on education, public awareness, and patient and family support. In addition, it supports more effective screening and treatment options and increased funding for prostate cancer research. For information, contact:

US TOO! International Inc.
5003 Fairview Ave.
Downers Grove, IL 60515
(800) 80-US TOO!
www.ustoo.org
PROSTATE HEALTH OBSERVANCES & RECOGNITION DAYS:

Prostate Cancer Awareness Week in Texas, June (the week following Father's Day)

Prostate Health Month, Sept. 1-30 – Sponsored by American Foundation of Urologic Disease (AFUD)

Prostate Cancer Awareness Week, in September - (AFUD)

Prostate Cancer Awareness Day, Sept. 3 - American Cancer Society
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Conclusion
Conclusion

Contributors to this Action Plan focused on current critical issues relating to prostate cancer's impact on Texas and ways to reduce that impact. However, since our understanding of prostate cancer prevention, detection and treatment is growing and changing, the recommendations in this Action Plan must change along with the science. To ensure this Action Plan remains relevant, current and useful to Texans, it must be monitored and updated periodically to reflect changes in medicine and science.

Also, many recommendations call for fundamental systems changes to current health care, including public and professional education, health policy and service distribution. As these changes occur, attention must be paid to the "state-of-the-State" regarding these systems, and the impact change will have on the Action Plan recommendations.

The intention of the Advisory Committee and sponsoring agencies is that this Action Plan will be widely used and adopted by those individuals and agencies within Texas who have the ability and resources to enact specific recommendations and provide a framework for the collaborative efforts needed to achieve sustainable results. It is the hope of the Advisory Committee that the Action Plan on Prostate Cancer for the State of Texas will spark new partnerships, innovative projects, increased funding allocation, and further research into the prevention, detection and treatment of prostate cancer.

The Advisory Committee and Texas Medical Association Physician Oncology Education Program would like to thank the Centers for Disease Control and Prevention, Texas Cancer Council, and Texas Department of Health for the opportunity to provide this document to the people of Texas. A special thanks goes to the American Cancer Society, Texas Division, Inc. and individual contributors for their assistance and leadership in the development of this document.
References
Glossary
Glossary

**Adenocarcinoma** – a malignant tumor originating in glandular epithelium.

**Clinical trials** – research studies to test new drugs or treatments and compare them to current, standard treatments in a clinical setting.

**Chemotherapy** – treatment with drugs to destroy cancer cells.

**Digital rectal examination (DRE)** – procedure in which a physician inserts a gloved finger into the rectum to feel for anything not normal.

**Hormone withdrawal therapy** – treatment of hormones, with drugs to interfere with hormone production or hormone action, or the surgical removal of hormone-producing glands.

**In situ** – in the natural or original position or place.

**Incidence** – rate of occurrence or influence.

**Mortality** – a: the number of deaths in a given time or place. b: the proportion of deaths to population. c: the number lost or the rate of loss or failure.

**Prostate-specific antigen (PSA)** – a gland protein made by the prostate. Levels in the blood often go up in men with prostate cancer. The PSA test is used to help find prostate cancer, as well as to monitor the results of treatment.

**Prostatic intraepithelial neoplasia (PIN)** – Noncancerous growth of the cells lining the internal and external surfaces of the prostate gland. It is an important sign that prostate cancer may develop.

**Risk factor** – anything that increases a person’s risk of getting a disease such as cancer.

**Radiation therapy** – the use of high-energy radiation from X-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumors.

**Screening** – the process of checking for a disease when there are no symptoms.

**Shared decision-making** – a process in which patients and their health care professionals engage to make decisions about the health care of the patient.

**Survey** – to query (someone) in order to collect data for the analysis of some aspect of a group or area.
Appendices
Appendix A

Prostate Cancer Incidence and Mortality Rates

**Prostate Cancer Incidence Rates, Texas, 1995-1997 – Urban/Rural Counties**

<table>
<thead>
<tr>
<th>URBAN COUNTY MALES</th>
<th>RURAL COUNTY MALES</th>
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</thead>
<tbody>
<tr>
<td># Cases</td>
<td>Rate*</td>
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<tr>
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<tr>
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**Prostate Cancer Mortality Rates, Texas, 1990-1999 – Urban/Rural Counties**

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<th>RURAL COUNTY MALES</th>
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<td>Count</td>
<td>Rate</td>
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<tr>
<td>All Races</td>
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<tr>
<td>Non-Hispanic White</td>
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* Rates are per 100,000 and age-adjusted to the 1970 U.S. standard.

Note: Urban counties from list of 58 Metropolitan counties in Texas, Texas Colorectal Action Plan. Rural counties are all other counties.

Prepared by: Texas Cancer Registry.

**Metropolitan Counties of Texas – 58 of Total 254 Counties**

- Archer
- Bastrop
- Bell
- Bexar
- Bowie
- Brazoria
- Brazos
- Caldwell
- Cameron
- Chambers
- Comal
- Coryell
- Dallas
- Denton
- Ector
- Ellis
- El Paso
- Fort Bend
- Galveston
- Grayson
- Gregg
- Guadalupe
- Hardin
- Harris
- Harrison
- Henderson
- Hidalgo
- Hood
- Hunt
- Jefferson
- Jefferson
- Johnson
- Kaufman
- Liberty
- Lubbock
- McLennan
- Midland
- Montgomery
- Nueces
- Orange
- Parker
- Potter
- Randall
- Rockwall
- San Patricio
- Smith
- Tarrant
- Taylor
- Tom Green
- Travis
- Upshur
- Victoria
- Waller
- Wichita
- Williamson
- Wilson
Prostate Cancer Incidence Rates* by Council of Government (COG) and Race/Ethnicity Compared to Statewide Prostate Cancer Incidence Rates for All Races Combined, Texas 1995-1997

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<tr>
<th>COG</th>
<th>Race / Ethnicity</th>
<th>Percent Increased</th>
<th>Annual Cases</th>
<th>COG</th>
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<td>2</td>
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<td>--</td>
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*Adjusted to the 1990 U.S. standard million population.
**Statistically significant at p < 0.05.

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Note: There was no statistically significantly higher prostate cancer incidence rate for Hispanic men.
Annual Cases are rounded to the nearest whole.
Prostate Cancer Mortality Rates* by Council of Government (COG) and Race/Ethnicity Compared to Statewide Prostate Cancer Mortality Rates for All Races Combined, Texas 1990-1999

<table>
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<td>24</td>
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*Age adjusted to the 1970 U.S. resident million population.

**Significantly higher rates for any race/ethnicity.
Appendix B

Analysis of Public and Physician Knowledge, Attitudes, Practices, and Beliefs Regarding Prostate Cancer

Public
The TDH Behavioral Risk Factor Surveillance System (BRFSS) performed a supplemental survey on prostate cancer from November 1999 through January 2000, collecting data regarding public opinion and awareness of prostate cancer from 1,006 Texas men (Figure 1). Nearly all (91 percent) of the men surveyed knew that age was a risk factor for prostate cancer. Seventy-three percent of respondents knew that family history was a risk factor, but only half of African-American men surveyed knew this fact. Also, the majority (59 percent) of African-American respondents did not know that race/ethnicity was a risk factor and did not consider themselves to be at high risk for prostate cancer.

Regarding the PSA test, most (64 percent) of the respondents had heard of the test, with Hispanic men having the least knowledge of it (37 percent). Out of those African-American respondents who had knowledge of the test, only 31 percent were advised to take the test. In fact, only 23 percent of African-American men, reported physician counseling on the risks and benefits of PSA screening for early detection of prostate cancer, followed by Hispanic men at 15 percent.

With reference to the age of the men surveyed, 78 percent of the respondents ages 65-74 were familiar with the PSA test, while 59 percent of men ages 40-64 were aware of the test. Eighty percent of the men 75 and older and 47 percent of the men ages 40-64 had been advised to take the test. Eighty-six percent of the men in the oldest age group were likely to have had the test, while just over half (55 percent).

Only 35 percent of respondents reported having discussed with their physicians the risks/benefits and differences of medical opinion about PSA screening. These discussions should include: (a) that it is unknown whether or not PSA screening will lower the number of deaths from prostate cancer; (b) that false positive and false negative PSA tests can occur; and (c) prostate cancers discovered by PSA can have a slow growth.

In an earlier BRFSS survey performed in Texas in 1997, 91 percent of respondents aged 40 or older who had a PSA test had the test at the recommendation of their physician. There was also a direct correlation between both public awareness of available tests and physician counseling, and who had taken the PSA test. These data suggest the need for ongoing surveillance of who is tested using the PSA test and if increased testing could substantially affect the outcome of prostate cancer incidence and mortality (16).

The implications of these findings are that a large percentage of the public is NOT well educated about prostate cancer, its risk factors, and the relative risks and benefits of early detection. These data support the need for stronger patient education initiatives, especially in the age of managed care when there may not be adequate opportunities for such interactions during the normal doctor-patient encounter. It may be that insurance providers need to become more involved in promoting patient education about prostate cancer prevention, screening, and early detection.

Physicians
Since 1995, the Chronic Disease Prevention and Control Research Center at Baylor College of Medicine has conducted Talk Back to Cancer Surveys to examine the changing practices, attitudes, and oncology education needs of physicians in Texas. These surveys have been funded by the Texas Cancer Council through the Physician Oncology Education Program (POEP) of the Texas Medical Association. Sampling from among all physicians in the state, the program provides not only current data but also longitudinal comparison of physician knowledge, attitudes, and practices over time. The project employs a series of both single focus, point-in-time surveys, as well as follow-up, longitudinal surveys. Each point-in-time survey is mailed to a random sample of physicians. Each follow-up longitudinal survey of previous respondents also is sent to a new independent sample of physicians for cross validation of results. The POEP uses survey results to guide the development of educational materials and shares these results with policymakers and directors of continuing medical education programs across the state.
Results
Looking back over questions related to prostate cancer since 1995 (Figure 2-5), results of the longitudinal surveys have not shown statistically significant changes. This indicates that the physician responses are stable over time. Although about 85 percent to 90 percent of physicians in the state live in urban metropolitan areas, there were very few statistically significant differences reported between urban and rural physicians. The racial/ethnic breakdown of patients that physicians reported in their practices varied systematically by the racial/ethnic identification of the physicians themselves. However, when comparing Primary Care Physicians (PCPs) with urologists, the racial and ethnic proportions in both groups have been similar, and there have been no statistically significant differences in results related to the race or ethnic background of the responding physicians.

The large majority of Texas primary care physicians support the more aggressive levels of prostate cancer screening supported by professional, educational, and advocacy groups such as the American Cancer Society (ACS), American Urological Association (AUA), US TOO! International Inc. and Prostate Action (ProAct). Among responding physicians, 50 percent begin to offer prostate cancer screening to asymptomatic men age 40-49 and 48 percent do so for age 50-59; 80 percent perform both digital rectal exam (DRE) and prostate-specific antigen (PSA) blood test for prostate cancer screening. It is noteworthy that practicing physicians thus seem to ignore the controversial aspects of prostate cancer screening and apparently do not share the view of the U.S. Preventive Services Task Force Guidelines, which recommend against routine population screening.

Respondents indicate that 83 percent always check the prostate during routine DREs. However, while encouraging, this means that 17 percent of responding physicians do NOT always check the prostate during routine DREs. PCPs were asked how confident they were in their ability to detect palpable abnormalities of the prostate during a DRE. On a scale of 1 (completely confident) to 10 (not at all confident), the median response was 4.0. Therefore, about 50 percent of the respondents consider themselves only "Somewhat" (5-6) able to detect prostate abnormalities. Indeed, 20 percent of the surveyed physicians indicated that they refer asymptomatic male patients to other specialists or subspecialists for routine digital rectal examination and prostate cancer screening.

One Talk Back survey in particular was designed to compare PCP and urologist prostate cancer screening knowledge, attitudes, and practices. It was purposefully scheduled for November-December 1999, to be conducted at the same time as the BRFSS survey described above. While there was considerable agreement between the PCPs and urologists, there also were statistically significant areas of difference regarding prevention, screening, and post-treatment follow-up. PCPs (17 percent to 45 percent) were less likely than urologists (44 percent to 70 percent) to recommend low fat diet, Selenium, or Vitamin E as measures to prevent prostate cancer (Table 1). PCPs were consistently more likely to recommend screening for symptomatic men with urinary hesitancy, decreased urinary stream, nocturnal urinating, and blood in urine (74 percent to 87 percent) than were urologists (55 percent to 64 percent). For asymptomatic patients, fewer PCPs (87 percent) than urologists (97 percent) recommended screening for age 50-59, while many more PCPs (97 percent) than urologists (87 percent) recommended screening for age 80+ (Table 2). PCPs (18 percent to 72 percent) were more likely than urologists (10 percent to 24 percent) to recommend screening for asymptomatic men with a history of benign prostatic hypertrophy (BPH), prostatitis, sexually transmitted diseases, vasectomy, and smoking. However, for asymptomatic African-American men – known to be at higher risk than other racial/ethnic groups – PCPs (71 percent) were less likely to recommend screening than were urologists (98 percent) (Table 3). PCPs (87 percent) also were less likely than urologists (99 percent) to recommend DRE in addition to PSA as part of the screening process (Table 4). PCPs and urologists also differed in what they considered normal PSA levels for post-treatment prostate cancer patients who had received radical prostatectomy (1.0 vs. 0.1) or radiation therapy (4.0 vs. 0.5). In general, there were no differences between rural and urban respondents, except for a few differences between rural and urban PCPs. More rural PCPs (33 percent) would recommend prostate cancer screening for men with a history of vasectomy, compared with urban PCPs (15 percent). All rural PCPs (100 percent) replied that they would recommend prostate cancer screening for decreased urinary stream, compared with 84.7 percent of urban PCPs. Fewer rural PCPs (57 percent) would recommend prostate cancer screening for men with a history of BPH, compared with 74 percent of urban PCPs.

In general, there is concern that more varied patient populations, especially minority and medically underserved populations, be represented in clinical trials. This is critically important to improve the evolving knowledge base about prostate cancer. In 2000, a separate Talk Back survey compared PCPs with specialists (not limited to urologists) regarding their knowledge, attitudes, and practices related to clinical trials. There were no statistically significant differences in the results for rural and urban physicians surveyed. Among the respondents, 21 percent of PCPs and 36 percent of specialists felt that specified groups such as ethnic minority, elderly, poor or indigent, and less-educated patients would be especially reluctant to participate in clinical trials.
PCPs were consistently less likely than specialists to have had patients ask about clinical trials, to have referred or recruited patients to clinical trials, or otherwise participated in the design, implementation, or administration of clinical trials. PCPs were more likely than urologists to enroll patients in behavior modification prevention studies (e.g., focusing on lifestyle changes like reducing dietary fat) and less likely to enroll patients in treatment trials. PCPs were more likely to be reluctant to recommend clinical trials due to patients' cultural beliefs and burden of paperwork, but less likely to be concerned about patient transportation problems. Conversely, PCPs were more likely than specialists to recommend a clinical trial for patients due to patient lack of means to pay for health care. PCPs were more likely to have patients in managed care programs or with no insurance, while specialists were more likely to have patients in government-insured programs such as Medicare, Medicaid, the Veterans Administration, and the public health system.

Looking at the Talk Back survey data for physicians, several interesting but disturbing findings surfaced. Although there is considerable overlap, PCPs and urologists consistently differ in certain areas of knowledge, attitudes, and practices regarding prostate cancer prevention, screening, early detection, and follow-up. PCPs as a group are less likely to be involved or to encourage their patients' involvement in clinical trials. PCPs are less likely than urologists to recommend DRE in addition to PSA as part of the screening process. Compared with urologists, PCPs as a group considered much higher PSA levels to be normal for post-treatment prostate cancer patients. This difference could have implications for follow-up and diagnosis of post-treatment recurrence.

When comparing public knowledge, using the BRFSS study described above, with physician knowledge, systematic and consistent differences show up in attitudes and practices about prostate cancer and prostate cancer screening. Among PCPs, 98 percent indicated that they offer prostate cancer screening to asymptomatic men (50 percent beginning at age 40, and 48 percent at age 50). Of those, 85 percent indicated that they used DRE, and 90 percent used PSA and 80 percent used both techniques. In the BRFSS sample, 80 percent also responded that they had ever had a DRE. However, only 64 percent indicated that they had heard of the PSA blood test, only 61 percent replied that they had ever had a PSA test (88 percent of those were done as part of a routine check-up), and only 54 percent replied that their doctor had ever told them they should have a PSA test. In the BRFSS sample, 91 percent of the public indicated that they knew age is a risk factor for prostate cancer. However, PCPs and urologists differ in their opinions about which age groups are most appropriate for screening.

While almost 100 percent of physicians recommend screening for men with a family history of prostate cancer, only 74 percent of the public indicated that having a blood relative with prostate cancer was a risk factor. While 100 percent of physicians recommend PSA for prostate cancer screening, only 64 percent of the public indicated that they had heard about PSA. While 98 percent of urologists would recommend prostate cancer screening for African-American men, only 71 percent of PCPs would do so, and only 44 percent of the public indicated that race/ethnicity is a risk factor for prostate cancer. Of the BRFSS sample reporting that they had been diagnosed with prostate cancer, 79 percent reported that PSA had been used to help detect their cancer. However, only 36 percent to 65 percent of the sample at large (including non-cancer patients) reported having discussed with their physicians the risks/benefits and controversial differences of medical opinion about PSA screening. This included that (a) it is unknown whether or not PSA screening will lower the number of deaths from prostate cancer, (b) that false positive and false negative PSA tests can occur, and (c) prostate cancers discovered by PSA can have a slow growth. Only 21 percent of the sample reported that their physicians, before the PSA test was administered, had discussed what treatments were available if prostate cancer was found.

**Implications**

The implications of these findings are that a large percentage of the public, including prostate cancer patients, are NOT well educated about prostate cancer, its risk factors, and the relative risks and benefits of early detection activity. These data support stronger patient education initiatives, especially in the age of managed care when there may not be adequate opportunities for such interactions during the normal doctor-patient encounter. It may be that insurance providers need to become more involved in promoting patient education about prostate cancer prevention, screening, and early detection.

The corollary observation is that substantial numbers of physicians are NOT initiating such communications with their patients, providing neither prevention education nor screening. They also are not aggressively encouraging participation in clinical trials among high risk patients, such as African-Americans and men with a family history of prostate cancer. Regardless of specific recommendations by different groups, all organizations recommend physician counseling with patients about whether or not to be screened. Research repeatedly shows that patients consider their physician to be a major resource in their health decision-making.
If there is inconsistency and confusion among physicians in their counseling about screening, there will be similar inconsistency and confusion among patients and the public. It is therefore important to have an educational program that helps physicians communicate better when definitive data is still being sought. Stronger data on PSA testing and new, more effective markers, and medical research will undoubtedly provide more information about screening guidelines in general and the value of PSA testing in particular. However, there is a growing sense among the public that the lack of clear answers should not deter those who understand the limits of the test and want to make their own informed decisions. There is thus a strong need for more continuing medical education among practicing physicians and more dialogue between PCPs and urologists, coordinated with improved public and patient education.

Table 1
Which of the following substances do you recommend to your patients for the prevention of diseases of the prostate?

<table>
<thead>
<tr>
<th>Substance</th>
<th>PCPs</th>
<th>Urologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Fat Diet</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>Green Tea</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Saw Palmetto</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Selenium</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Beta Carotene</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2
For which age groups of asymptomatic patients do you recommend annual prostate cancer screening?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>PCPs</th>
<th>Urologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;40</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>40-49</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>50-59</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>60-69</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>70-79</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>80+</td>
<td>50</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 3
For which of the following groups of asymptomatic patients would you be more likely to recommend prostate cancer screening?

<table>
<thead>
<tr>
<th>Group</th>
<th>PCPs</th>
<th>Urologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family History of Prostate Cancer</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>African-American History of BPH</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>History of Prostatitis</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>History of STDs</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>History of Vasectomy</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>History of Smoking</td>
<td>50</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 4
When prostate cancer screening is offered, what tests do you recommend?

<table>
<thead>
<tr>
<th>Test</th>
<th>PCPs</th>
<th>Urologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>DRE</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Transrectal Ultrasound</td>
<td>80</td>
<td>70</td>
</tr>
</tbody>
</table>
BRFSS Telephone Survey Questions related to Prostate Cancer

1. A man’s age considered a risk factor for developing prostate cancer. (T/F)
2. A man’s race or ethnicity is considered a risk factor for developing prostate cancer. (T/F)
3. The number of a man’s sexual partners is considered a risk factor for developing prostate cancer. (T/F)
4. Prostate cancer in a blood relative is considered a risk factor for developing prostate cancer. (T/F)
5. A man’s use or non-use of tobacco is considered a risk factor for developing prostate cancer. (T/F)
6. The prostate gland is a walnut-sized gland that sits just below the bladder in the bottom of the pelvis. (T/F)
7. A function of the prostate is to secrete hormones to aid in a man’s sexual function. (T/F)
8. A function of the prostate is to add vital nutrients and fluid to the sperm. (T/F)
9. In terms of your own risk, what would you say your chances are of developing prostate cancer?
10. To your knowledge, have any of your blood relatives have been told they have prostate cancer?
11. About how old was your closest blood relative when he was told he had prostate cancer?
12. Would you say that your closest blood relative was of old age, middle age, or young age when he was told he had prostate cancer?
13. Has a doctor ever told you that you have prostate cancer?
14. Have you heard of the PSA blood test?
15. Have you ever been told by a doctor that you should have a PSA blood test?
16. Have you ever had a PSA blood test?
17. How long has it been since your last PSA blood test?
18. Was your last PSA blood test done as part of a routine check-up, because of a prostate problem other than cancer, or because you have already had prostate cancer?
19. Have you ever had a digital rectal examination?
20. When did you have your last digital rectal exam?
21. Have you ever discussed with your physician or other health care provider the risks or benefits of PSA screening for early detection of prostate cancer?
22. That the use of the PSA test as a screening test is controversial! That some medical experts support the use of the PSA test as a screening test for prostate cancer, and some do not.
23. That it is unknown whether or not PSA screening will lower the number of deaths from prostate cancer?
24. That false positive PSA test can occur? That is, an abnormal PSA test result does not always mean that prostate cancer is present?
25. That prostate cancers found by PSA tests are more likely to be curable than those detected other means?
26. Did your physician or other health care provider discuss prostate cancer’s potential for slow growth?
27. Before you had your PSA test, did your doctor discuss with you what treatments you could get if prostate cancer was found?
28. That false negative test results can occur? That a normal PSA test result can not guarantee that prostate cancer is not present.
29. Did your doctor or other health care professional discuss with you the results of your last PSA test?
30. Was a digital rectal examination used to help find your prostate cancer?
31. Was a PSA test used to help find your prostate cancer?
32. Was a trans-rectal ultrasound used to help find your prostate cancer? A transrectal ultrasound is when a doctor inserts an instrument into the rectum to project an image of the prostate onto a television like monitor.
33. Was a biopsy used to help find your prostate cancer?
34. What was your doctor’s recommendation regarding treatment of your prostate cancer?
35. Did you seek and receive a second opinion regarding treatment of your prostate cancer?
36. What was the final action that you took regarding the treatment of your prostate cancer?
37. After your surgery, did you experience any erectile dysfunction, some people call this impotence, or inability to get or maintain erection?
38. Have you ever taken Viagra or Sildenafil for erectile dysfunction?
39. When you took Viagra or Sildenafil for erectile dysfunction, were you able to achieve an erection sufficient for intercourse?
Talkback Survey questions related to prostate cancer:

**Survey 5 - 1996**

In your daily practice, at what age do you begin to offer prostate cancer screening to asymptomatic men?

- [ 50% ] 40-49
- [ 48% ] 50-59
- [  3% ] 60-69
- [  0% ] over age 70

n = 198

If you do offer prostate cancer screening to asymptomatic men, what test(s) do you perform?

- [  5% ] DRE only
- [ 10% ] PSA only
- [ 80% ] DRE and PSA
- [  1% ] DRE, PSA and Trans-Rectal Ultrasound
- [  4% ] Other, specify ________________________________

n = 203

Please indicate on the scale below how confident you are in your ability to detect palpable abnormalities of the prostate during a digital rectal exam.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely confident</td>
<td>Somewhat confident</td>
<td>Not at all confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean = 4.2, Median = 4.0, Standard Deviation = 2.05

n = 212

During routine DRE’s in males, do you check the prostate?

- [ 83% ] Yes, all of the time
- [ 13% ] Yes, most of the time
- [  4% ] Yes, some of the time
- [  0% ] No, seldom
- [  1% ] No, never

n = 215
**Figure 3**

Survey 8 - 1997

When you make a recommendation for routine prostate cancer screening (i.e. digital rectal examination, PSA testing) of an asymptomatic male patient, how important is each of the following factors?

<table>
<thead>
<tr>
<th>Patient's</th>
<th>Important</th>
<th>Critical</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Race or ethnicity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Family history</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Medical history</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Insurance coverage</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ability to pay for service</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

[ ] I do not see male patients  *(Median value underlined in bold.)*

In your daily practice, how often do you refer asymptomatic male patients to other specialists or sub-specialists for routine digital rectal examination and prostate cancer screening? *(N = 219)*

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 never</td>
<td>47.5%</td>
<td>4</td>
<td>most of the time 3.2%</td>
</tr>
<tr>
<td>2 seldom</td>
<td>32.4%</td>
<td>5</td>
<td>all of the time 3.2%</td>
</tr>
<tr>
<td>3 some of the time</td>
<td>13.7%</td>
<td>[ ] I do not see male patients</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4

**Responses from Primary Care Specialists**

1. For which age groups of asymptomatic patients do you recommend annual prostate cancer screening? Check all that apply.
   - 2% < 40
   - 7% 40-49
   - 47% 50-59
   - 87% 60 + **

2. For what medical problems would you recommend prostate cancer screening? Check all that apply.
   - 65% increased urinary urgency
   - 70% increased urinary frequency
   - 81% urinary hesitancy **
   - 87% decreased urinary stream **
   - 74% nocturia **
   - 83% hematuria **
   - 11% other **

3. For which of the following groups of asymptomatic patients would you be more likely to recommend prostate cancer screening? Check all that apply.
   - 97% men with a family history of prostate cancer
   - 71% African American men **
   - 72% men with a history of BPH **
   - 56% men with a history of prostatitis **
   - 26% men with a history of STD's **
   - 18% men with a history of vasectomy *
   - 56% men with a history of smoking **
   - 31% other

4. When prostate cancer screening is offered, what tests do you recommend? Check all that apply.
   - 96% PSA
   - 87% DRE **
   - 11% trans rectal ultrasound
   - 2% other

5. A PSA of less than or equal to what value is normal for each of the following groups of male patients? (median reported values)
   - a. PSA <= 4.0 ng/ml is normal for an asymptomatic patient
   - b. PSA <= 1.0 ng/ml is normal for a patient treated for prostate cancer with radical prostatectomy **
   - c. PSA <= 4.0 ng/ml is normal for a patient treated for prostate cancer with radiation therapy **

6. Which of the following substances do you recommend to your patients for the prevention of diseases of the prostate? Check all that apply.
   - 45% low fat diet **
   - 8% green tea
   - 24% saw palmetto
   - 17% selenium **
   - 6% vitamin D
   - 26% vitamin E **
   - 13% beta carotene
   - 6% other

7. In physical examinations of asymptomatic male patients age 50 and older do you routinely perform DRE? **
   - 2% yes, only to detect colorectal cancer
   - 1% yes, only to detect prostate cancer
   - 85% yes, to detect both colorectal and prostate cancer
   - 5% no, do not routinely perform DRE
   - 2% do not perform physical examinations of asymptomatic male patients age 50 and older

8. Approximately what proportion of your patients is male?
   - 40% (median reported value) **

9. Approximately what proportion of your patients comes from each of the following ethnic groups? (median reported values)
   - 60% White
   - 10% Black
   - 20% Hispanic
   - 0% Asian or Pacific Islanders
   - 0% American Indian or Alaskan Native
   - 0% other

10. Approximately what proportion of the medical care that you provide is covered by the following types of insurance? (median reported values)
    - 40% managed care (HMO, PPO, etc.)
    - 10% indemnity insurance (fee-for-service, etc.)
    - 30% government sponsored insurance (Medicare, Medicaid, VA, public health system, etc.)
    - 5% no insurance
Figure 5

RESPONSES FROM UROLOGISTS

1. For which age groups of asymptomatic patients do you recommend annual prostate cancer screening? Check all that apply.
   - 1% < 40
   - 37% 40-49
   - 97% 50-59

2. For what medical problems would you recommend prostate cancer screening? Check all that apply.
   - 65% increased urinary urgency
   - 63% increased urinary frequency
   - 64% urinary hesitancy
   - 65% decreased urinary stream
   - 55% nocturia
   - 60% hematuria
   - 28% other

3. For which of the following groups of asymptomatic patients would you be more likely to recommend prostate cancer screening? Check all that apply.
   - 99% men with a family history of prostate cancer
   - 98% African American men
   - 24% men with a history of BPH
   - 18% men with a history of prostatitis
   - 5% men with a history of STDs
   - 10% men with a history of vasectomy
   - 12% men with a history of smoking
   - 8% other

4. When prostate cancer screening is offered, what tests do you recommend? Check all that apply.
   - 100% PSA
   - 95% DRE
   - 7% trans rectal ultrasound
   - 2% other

5. A PSA of less than or equal to what value is normal for each of the following groups of male patients? (median reported values)
   a. PSA <= 4.0 ng/ml is normal for an asymptomatic patient
   b. PSA <= 0.1 ng/ml is normal for a patient treated for prostate cancer with radical prostatectomy
   c. PSA <= 0.5 ng/ml is normal for a patient treated for prostate cancer with radiation therapy

6. Which of the following substances do you recommend to your patients for the prevention of diseases of the prostate? Check all that apply.
   - 70% low fat diet
   - 8% green tea
   - 24% saw palmetto
   - 47% selenium
   - 10% vitamin D
   - 44% vitamin E
   - 12% beta carotene
   - 16% other

7. In physical examinations of asymptomatic male patients age 50 and older do you routinely perform DRE? Check all that apply.
   - 90% yes, only to detect colorectal cancer
   - 80% yes, to detect both colorectal and prostate cancer
   - 67% no, do not routinely perform DRE
   - 5% do not perform physical examinations of asymptomatic male patients age 50 and older

8. Approximately what proportion of your patients is male?
   - 60% (median reported value)

9. Approximately what proportion of your patients comes from each of the following ethnic groups? (median reported values)
   - 55% White
   - 18% Black
   - 15% Hispanic
   - 4% Asian or Pacific Islanders
   - 0% American Indian or Alaskan Native
   - 0% other

10. Approximately what proportion of the medical care that you provide is covered by the following types of insurance? (median reported values)
    - 31% managed care (HMO, PPO, etc.)
    - 10% indemnity insurance (fee-for-service, etc.)
    - 45% government sponsored insurance (Medicare, Medicaid, VA, public health system, etc.)
    - 5% no insurance
Appendix C

Patient Education Handout

Is prostate cancer screening for me?

This information is provided to help you talk to your doctor to determine if prostate cancer screening is right for you.

Prostate cancer is the second leading cause of cancer deaths in men, but screening with an annual serum prostate-specific antigen (PSA) test and digital rectal exam (DRE) is controversial. Because research studies are still under way to determine whether regular testing with PSA will reduce the number of deaths from prostate cancer, many professional organizations recommend that men discuss screening options with their doctor and then make an informed decision.

Who is at risk?
The risk of getting prostate cancer is higher in men who are over age 50, over age 45 and whose father or brother has prostate cancer, or African-American.

What are the facts?
The prostate is a sexual gland found only in men and helps produce semen. About the size of a walnut or small lime, it surrounds a portion of the urethra, the tube through which urine passes.

Only lung cancer kills more men than prostate cancer, which accounts for about 31,500 deaths per year. About 1 in 6 men will develop prostate cancer.

What are the symptoms?
Early prostate cancer may have no symptoms. However, talk with your doctor if you have any of the following symptoms: pain, weight loss, difficulty with sexual function, or difficulty urinating or holding onto urine.

What is prostate cancer screening?
All men, starting at age 50 or at 45 if there is a higher risk for prostate cancer, should discuss prostate cancer screening with their doctor. Two screening tests are available, and they can be done separately or together.

Digital rectal exam (DRE)
During a DRE a doctor inserts a gloved, lubricated finger into your rectum to examine the prostate and to check for abnormalities. This exam can be uncomfortable, but it only lasts a short time. It should not be painful. Unusual results from a DRE may lead to other tests to see if prostate cancer is present.

Prostate-specific antigen (PSA) test
The PSA test measures the level of a protein called prostate-specific antigen in the blood. A high PSA reading may lead to another test (biopsy) to see whether prostate cancer is present.

- The PSA test may help detect prostate cancer earlier than the DRE alone.
- A PSA test result can be abnormal, even though a man does not have prostate cancer.
- A PSA test can be normal, even though a man does have prostate cancer.

You have the right to request a PSA test. Because doctors have different opinions about how useful the test is, you should talk to your doctor and make an informed decision about the test.

Options for men with early prostate cancer

Watchful waiting
Prostate cancer may grow slowly and not cause any symptoms. According to a 1998 study published in the American Journal of Medicine, many older men with prostate cancer may not need any treatment. For example, a man over age 70 is less likely to die from prostate cancer even though he is at higher risk of having it. He may be at higher risk of dying from something else.

Prostatectomy
A prostatectomy is the surgical removal of part, or all, of the prostate.

Radiation therapy
High energy x-rays may be used to kill cancer cells.

Prostate cancer treatment may produce side effects. Doctors do not know the best course of action for a man with early prostate cancer. That is why you should discuss options with your doctor.

Resource information
Texas Department of Health: (800) 242-3399
American Cancer Society: (800) 227-2345
Cancer Information Service: (800) 422-6237

Web site information
Texas Department of Health: www.tdh.state.tx.us/ospd/PROSTATE.HTM
American Cancer Society: www.cancer.org
Centers for Disease Control & Prevention: www.cdc.gov/ncddphp/dctpc/prostate.html

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## Appendix D

### Prostate Cancer Screening Mandates

<table>
<thead>
<tr>
<th>State</th>
<th>Citation</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Sec. 22.41.395 H 416</td>
<td>Health insurer shall provide coverage for the cost of prostate cancer screening tests. Minimum coverage requires annual screening for two groups of patients: 1) a person who is at least 35 but less than 40 and is in a high risk group (defined as African-American or with family history) and 2) for a person who is 40 or more.</td>
</tr>
<tr>
<td>California</td>
<td>Sec. 1367.64</td>
<td>Individual or group health care service plan contract must provide coverage for the screening and diagnosis of prostate cancer including PSA and DRE.</td>
</tr>
<tr>
<td>Colorado</td>
<td>C.R.S. 10-16-104</td>
<td>All individual and all group sickness and accidental policies shall provide coverage for annual screening for the early detection of prostate cancer in men over the age of 50 years and in men over the age of 40 years who are in high-risk categories. Such coverage shall be the lesser of $65 per prostate cancer screening or the actual charge for such screening.</td>
</tr>
<tr>
<td>Connecticut</td>
<td>HB 7032 Public Act No.99-284</td>
<td>Requires specified insurers to provide coverage for prostate cancer screening and diagnostic tests and provides coverage guidelines.</td>
</tr>
<tr>
<td>Delaware</td>
<td>18 Del. C. 3552</td>
<td>All group and blanket health insurance policies which are delivered or issued for delivery in this state by any health insurer or health service corporation and which provide benefits for outpatient services shall provide to covered persons residing or having their principal place of employment in this state and being age 50 or above a benefit for prostate cancer screening.</td>
</tr>
<tr>
<td>Georgia</td>
<td>Official Code 33-29-3.2.</td>
<td>Mandates coverage for annual prostate-specific antigen tests for the covered males who are 45 years of age or older, or for covered males who are 40 years of age or older, if ordered by a physician.</td>
</tr>
<tr>
<td>Illinois</td>
<td>HB 1881</td>
<td>Amends the state employees group insurance act and education employees health insurance coverage and Medicaid coverage to include annual PSA.</td>
</tr>
<tr>
<td>Indiana</td>
<td>SB 126</td>
<td>Requires group insurance for public employees, group insurers and Health Maintenance Organizations to provide annual PSA screening to a man who is at least 40 or whose treating physician determines screening is medically necessary.</td>
</tr>
<tr>
<td>Kansas</td>
<td>K.S.A 40-2, 164</td>
<td>Health benefit society or health maintenance organization which provides coverage for accident and health services shall provide coverage for prostate cancer screening for men 40 years of age or who are symptomatic or in a high-risk category and for all men 50 years of age or older.</td>
</tr>
</tbody>
</table>
### Prostate Cancer Screening Mandates (continued)

<table>
<thead>
<tr>
<th>State</th>
<th>Citation</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>22:215.11</td>
<td>Mandates coverage for detection of prostate cancer, including digital rectal examination and prostate-specific antigen testing for men over the age of 50 years and as medically necessary and appropriate for men over 40.</td>
</tr>
<tr>
<td>Maine</td>
<td>24 M.R.S. 2325-C</td>
<td>All individual and group plans must provide coverage for early detection of prostate cancer.</td>
</tr>
<tr>
<td>Maryland</td>
<td>H 1040 (1997) SB 428</td>
<td>Requires annual screening coverage for men between ages 40 and 75 when used for the purpose of guiding patient management in monitoring the response to prostate cancer treatment when used for staging in determining the need for a bone scan in patients with prostate cancer or when used for male patients who are at high risk for prostate cancer.</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Minn. Stat. 62Q.50</td>
<td>A health plan must cover prostate cancer screening for men 40 years of age or over who are symptomatic or in a high-risk category and for all men 50 years of age or older.</td>
</tr>
<tr>
<td>Missouri</td>
<td>HB 191</td>
<td>Requires individual and group health insurance and self-insured group arrangements to provide coverage for a prostate examination and laboratory tests for cancer for any nonsymptomatic man in accordance with American Cancer Society guidelines.</td>
</tr>
<tr>
<td>New Jersey</td>
<td>17B:27-46.1o</td>
<td>Mandates digital rectal examination and a prostate-specific antigen test for men age 50 and over who are asymptomatic and for men age 40 and over with a family history of prostate cancer or other prostate cancer risk factors.</td>
</tr>
<tr>
<td>New York</td>
<td>A 5037</td>
<td>Requires coverage of diagnostic screenings for prostate cancer.</td>
</tr>
<tr>
<td>North Carolina</td>
<td>NC GS 135-1 58-50-155</td>
<td>Requires that the standard health plan developed and approved under GS58-50-125 provide coverage for PSA. Requires benefit plans for teachers and state employees to pay 100 percent of allowable charges for routine diagnostic examinations and tests, including prostate exams.</td>
</tr>
<tr>
<td>North Dakota</td>
<td>ND S 2115 (1997) 26.1-36-09.6</td>
<td>Requires all health insurance policies to cover annual DRE and PSA for men 50 and over, African-American men 40 and over, and men 40 and over with a family history. Exempts insurers from providing coverage of PSA and other state mandates in basic health insurance policies delivered, issued, and received by employers with fewer than 50 employees.</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>36 Okl. St. 6060.8</td>
<td>Health benefit plans shall offer prostate cancer screening coverage for men 50 years and in men over the age of 40 who are in high-risk categories.</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>RI H 7395 or S 2299</td>
<td>Requires every individual or group hospital or medical expense insurance policy or contract, nonprofit hospital or medical service plan and HMO plan to include coverage for prostate examinations and laboratory testing for all nonsymptomatic persons.</td>
</tr>
<tr>
<td>South Dakota</td>
<td>H 1088</td>
<td>Requires coverage for prostate cancer screening.</td>
</tr>
<tr>
<td>Tennessee</td>
<td>56-7-2354</td>
<td>Mandates coverage for the early detection of prostate cancer for men aged 50 and over and other men if a physician determines that early detection for prostate cancer is medically necessary.</td>
</tr>
</tbody>
</table>
### Prostate Cancer Screening Mandates (continued)

<table>
<thead>
<tr>
<th>State</th>
<th>Citation</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>TX Ins. Code art. 26.45</td>
<td>Coverage for the following preventive care must be provided on an appropriate medical schedule without copayment or deductible: prostate cancer screening.</td>
</tr>
<tr>
<td>Utah</td>
<td>HCR 2</td>
<td>Encourages private health insurance companies and employers to include insurance coverage for the screening and detection of prostate cancer.</td>
</tr>
<tr>
<td>Vermont</td>
<td>HB 189</td>
<td>Established standards for health insurance coverage services including PSA.</td>
</tr>
<tr>
<td>Virginia</td>
<td>H 915 (1998)</td>
<td>Requires state health insurance plans and Medicaid to include coverage to persons age 50 and over and persons age 40 and over who are at high risk for prostate cancer according to ACS guidelines.</td>
</tr>
<tr>
<td>Wyoming</td>
<td>H 26</td>
<td>Requires group coverage for prostate screening.</td>
</tr>
</tbody>
</table>

**Source:** National Conference of State Legislatures. Prostate Cancer Screening Mandates, 30 May 2001.
## Cost of Prostate Cancer in Texas

### Estimated Prostate Cancer Costs 1998

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizations and Facility Costs</td>
<td>$98.2 million</td>
</tr>
<tr>
<td>Inpatient Physician Services</td>
<td>$21.2 million</td>
</tr>
<tr>
<td>Emergency Services</td>
<td>$938,000</td>
</tr>
<tr>
<td>Hospice Care</td>
<td>$5.1 million</td>
</tr>
<tr>
<td>Cancer Screening: PSA test</td>
<td>$26.7 million</td>
</tr>
<tr>
<td>Total Direct Cost</td>
<td>$152 million</td>
</tr>
<tr>
<td>Cost of Lost Productivity</td>
<td>$203.6 million</td>
</tr>
<tr>
<td>Estimated People Disabled due to Prostate Cancer</td>
<td>12,000</td>
</tr>
</tbody>
</table>

### Prostate Cancer Deaths

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-44</td>
<td>1</td>
</tr>
<tr>
<td>45-59</td>
<td>67</td>
</tr>
<tr>
<td>60-74</td>
<td>532</td>
</tr>
<tr>
<td>75+</td>
<td>1,295</td>
</tr>
<tr>
<td>Total</td>
<td>1,895</td>
</tr>
</tbody>
</table>

### Years of Life Lost

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-44</td>
<td>0</td>
</tr>
<tr>
<td>45-59</td>
<td>1,500</td>
</tr>
<tr>
<td>60-74</td>
<td>7,000</td>
</tr>
<tr>
<td>75+</td>
<td>6,300</td>
</tr>
<tr>
<td>Total</td>
<td>14,800</td>
</tr>
</tbody>
</table>

### Cost of Lost Productivity Due to Mortality (x $1,000)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-29</td>
<td>0</td>
</tr>
<tr>
<td>30-44</td>
<td>930</td>
</tr>
<tr>
<td>45-59</td>
<td>30,046</td>
</tr>
<tr>
<td>60-74</td>
<td>49,218</td>
</tr>
<tr>
<td>75+</td>
<td>9,571</td>
</tr>
<tr>
<td>Total</td>
<td>$89,764</td>
</tr>
</tbody>
</table>
### Summary of Estimated Total Cost of Prostate Cancer in Texas, 1998

<table>
<thead>
<tr>
<th></th>
<th>Direct Cost (x$1,000)</th>
<th>Morbidity (x$1,000)</th>
<th>Mortality (x$1,000)</th>
<th>Total (x$1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate Cancer</td>
<td>$152,121</td>
<td>$203,553</td>
<td>$89,764</td>
<td>$445,438</td>
</tr>
</tbody>
</table>

**Source:** Texas Department of Health. Texas Comprehensive Cancer Control Program. The Cost of Cancer in Texas. (TDH Publication No. 44-11140) Texas 2001

### Cost by Region

<table>
<thead>
<tr>
<th>PHR</th>
<th>Deaths</th>
<th>Years of Life Lost</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1</td>
<td>108</td>
<td>800</td>
<td>$5,177,000</td>
</tr>
<tr>
<td>Region 2</td>
<td>87</td>
<td>700</td>
<td>3,611,000</td>
</tr>
<tr>
<td>Region 3</td>
<td>417</td>
<td>3,300</td>
<td>20,857,000</td>
</tr>
<tr>
<td>Region 4</td>
<td>164</td>
<td>1,300</td>
<td>7,299,000</td>
</tr>
<tr>
<td>Region 5</td>
<td>121</td>
<td>900</td>
<td>5,270,000</td>
</tr>
<tr>
<td>Region 6</td>
<td>358</td>
<td>2,900</td>
<td>17,760,000</td>
</tr>
<tr>
<td>Region 7</td>
<td>195</td>
<td>1,500</td>
<td>8,683,000</td>
</tr>
<tr>
<td>Region 8</td>
<td>203</td>
<td>1,600</td>
<td>10,148,000</td>
</tr>
<tr>
<td>Region 9</td>
<td>66</td>
<td>500</td>
<td>2,668,000</td>
</tr>
<tr>
<td>Region 10</td>
<td>51</td>
<td>300</td>
<td>1,410,000</td>
</tr>
<tr>
<td>Region 11</td>
<td>125</td>
<td>1,000</td>
<td>6,883,000</td>
</tr>
</tbody>
</table>

**Source:** Texas Department of Health. Texas Comprehensive Cancer Control Program. The Cost of Cancer in Texas. (TDH Publication No. 44-11140) Texas 2001
Appendix F

American Cancer Society Objectives

Nationwide Objectives by 2015:

Incidence: Reduce the incidence rate of prostate cancer by 15 percent.

Mortality: Reduce the mortality rate of prostate cancer by 20 percent.

Early Detection: Increase to 90 percent the proportion of men age 50 and older who follow American Cancer Society detection guidelines for prostate cancer.

Nationwide Objectives by 2005:

Behavior Change: Increase the percentage of age-eligible men who have been offered prostate-specific antigen screening to 75 percent.

Texas Division outcome objectives for prostate cancer for 2000-2005:

• Barriers preventing testing are addressed and reduced through education and outreach efforts.
• Support to Texas Cancer Registry is increased in cooperation with American College of Surgeons to generate useful and real data.
• Health professionals understand and follow the American Cancer Society early detection guidelines for prostate cancer.
• More men are aware and participate in prevention trials/research.
• More prostate cancer patients understand available treatment.
Appendix G

Number of Texas Prostate Cancer Physician Specialists and Primary Care Physicians by Public Health Region and Ratio to Male Population Aged 50 Plus

<table>
<thead>
<tr>
<th>PHR</th>
<th>Urologists</th>
<th>Therapeutic Radiologists</th>
<th>Oncologists</th>
<th>Total Number Specialists</th>
<th>Male Population</th>
<th>Ratio Specialists to PHR Population Age 50+</th>
<th>Number Primary Care Physicians (F, G, IM)</th>
<th>Ratio Primary Care Physicians to PHR Population 50+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21</td>
<td>4</td>
<td>19</td>
<td>44</td>
<td>92,974</td>
<td>1:2113</td>
<td>446</td>
<td>1:208</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>24</td>
<td>70,183</td>
<td>1:2924</td>
<td>288</td>
<td>1:244</td>
</tr>
<tr>
<td>3</td>
<td>138</td>
<td>28</td>
<td>106</td>
<td>272</td>
<td>573,839</td>
<td>1:2110</td>
<td>2644</td>
<td>1:217</td>
</tr>
<tr>
<td>4</td>
<td>37</td>
<td>4</td>
<td>21</td>
<td>62</td>
<td>144,025</td>
<td>1:2323</td>
<td>531</td>
<td>1:271</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>3</td>
<td>12</td>
<td>33</td>
<td>97,163</td>
<td>1:2944</td>
<td>373</td>
<td>1:260</td>
</tr>
<tr>
<td>6</td>
<td>145</td>
<td>36</td>
<td>181</td>
<td>362</td>
<td>476,617</td>
<td>1:1317</td>
<td>2398</td>
<td>1:199</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
<td>15</td>
<td>49</td>
<td>124</td>
<td>227,814</td>
<td>1:1837</td>
<td>1116</td>
<td>1:204</td>
</tr>
<tr>
<td>8</td>
<td>62</td>
<td>17</td>
<td>33</td>
<td>112</td>
<td>248,443</td>
<td>1:2218</td>
<td>1150</td>
<td>1:216</td>
</tr>
<tr>
<td>9</td>
<td>15</td>
<td>4</td>
<td>10</td>
<td>29</td>
<td>65,529</td>
<td>1:2260</td>
<td>236</td>
<td>1:278</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
<td>6</td>
<td>10</td>
<td>30</td>
<td>72,939</td>
<td>1:2431</td>
<td>247</td>
<td>1:295</td>
</tr>
<tr>
<td>11</td>
<td>30</td>
<td>9</td>
<td>24</td>
<td>63</td>
<td>175,549</td>
<td>1:2786</td>
<td>710</td>
<td>1:247</td>
</tr>
<tr>
<td>State Total</td>
<td>552</td>
<td>128</td>
<td>475</td>
<td>1155</td>
<td>2,245,075</td>
<td>1:1944</td>
<td>10,139</td>
<td>1:221</td>
</tr>
<tr>
<td>Ratio to State Male Population 50+</td>
<td>1:4067</td>
<td>1:17,539</td>
<td>1:4726</td>
<td>1:1944</td>
<td>1:221</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Texas Cancer Data Center, 2001
(Based on licensed Texas physicians in full-time practice and direct patient care listed by the Texas State Board of Medical Examiners, March 2001, and population projections for 2001 by the Texas State Data Center, August 1998)
## Appendix H

### Average Annual Prostate Cancer Incidence Rates by Public Health Region (PHR) and Race/Ethnicity, Texas, 1995-1997

<table>
<thead>
<tr>
<th></th>
<th>Non-Hispanic White</th>
<th>African-American</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate*</td>
<td>Avg. Annual Cases</td>
<td>Rate*</td>
<td>Avg. Annual Cases</td>
</tr>
<tr>
<td>PHR1</td>
<td>115.9</td>
<td>367</td>
<td>166.4</td>
<td>22</td>
</tr>
<tr>
<td>PHR2</td>
<td>113.0</td>
<td>313</td>
<td>116.1</td>
<td>11</td>
</tr>
<tr>
<td>PHR3</td>
<td>120.0</td>
<td>1781</td>
<td>170.9</td>
<td>262</td>
</tr>
<tr>
<td>PHR4</td>
<td>118.5</td>
<td>558</td>
<td>204.9</td>
<td>135</td>
</tr>
<tr>
<td>PHR5</td>
<td>114.6</td>
<td>383</td>
<td>170.4</td>
<td>97</td>
</tr>
<tr>
<td>PHR6</td>
<td>138.5</td>
<td>1568</td>
<td>188.2</td>
<td>405</td>
</tr>
<tr>
<td>PHR7</td>
<td>134.8</td>
<td>865</td>
<td>182.9</td>
<td>121</td>
</tr>
<tr>
<td>PHR8</td>
<td>134.4</td>
<td>733</td>
<td>208.5</td>
<td>81</td>
</tr>
<tr>
<td>PHR9</td>
<td>114.5</td>
<td>233</td>
<td>192.8</td>
<td>17</td>
</tr>
<tr>
<td>PHR10</td>
<td>122.5</td>
<td>132</td>
<td>185.7</td>
<td>11</td>
</tr>
<tr>
<td>PHR11</td>
<td>158.2</td>
<td>421</td>
<td>238.3</td>
<td>16</td>
</tr>
<tr>
<td>Texas</td>
<td>127.1</td>
<td>2452</td>
<td>1832</td>
<td>1177</td>
</tr>
</tbody>
</table>

*Rates are average annual rates per 100,000 and age-adjusted to the 1970 U.S. standard.

Average annual cases are rounded to the nearest whole.
Appendix I

Average Annual Prostate Cancer Mortality Rates by Public Health Region (PHR) and Race/Ethnicity, Texas, 1990-1999

|        | Non-Hispanic White | | African-American | | Hispanic | | Other |
|--------|-------------------|---|-----------------|---|-----------------|---|-----------------|---|
|        | Rate*  | Avg. Annual Cases | Rate*  | Avg. Annual Cases | Rate*  | Avg. Annual Cases | Rate*  | Avg. Annual Cases |
| PHR1   | 24.2   | 83               | 55.7   | 8               | 14.8   | 5               | 0.0    | 0               |
| PHR2   | 23.1   | 76               | 45.1   | 5               | 16.1   | 3               | 0.0    | 0               |
| PHR3   | 24.0   | 322              | 61.2   | 85              | 15.5   | 13              | 3.3    | 1               |
| PHR4   | 22.8   | 155              | 54.9   | 40              | 9.8    | 1               | 7.2    | 0               |
| PHR5   | 21.2   | 75               | 53.3   | 33              | 14.3   | 22              | 8.7    | 3               |
| PHR6   | 24.8   | 233              | 52.5   | 104             | 16.9   | 11              | 9.5    | 1               |
| PHR7   | 22.8   | 155              | 54.9   | 40              | 17.3   | 51              | 8.2    | 1               |
| PHR8   | 23.1   | 137              | 47.3   | 19              | 11.5   | 5               | 5.8    | 0               |
| PHR9   | 24.0   | 50               | 49.9   | 4               | 22.2   | 30              | 0.0    | 0               |
| PHR10  | 20.4   | 22               | 40.6   | 2               | 15.4   | 54              | 0.0    | 0               |
| PHR11  | 20.9   | 65               | 44.6   | 4               | 15.4   | 54              | 0.0    | 0               |
| Texas  | 23.2   | 1332             | 54.1   | 349             | 16.3   | 195             | 6.1    | 5               |

*Rates are average annual rates per 100,000 and age-adjusted to the 1970 U.S. standard.

Average annual cases are rounded to the nearest whole.