

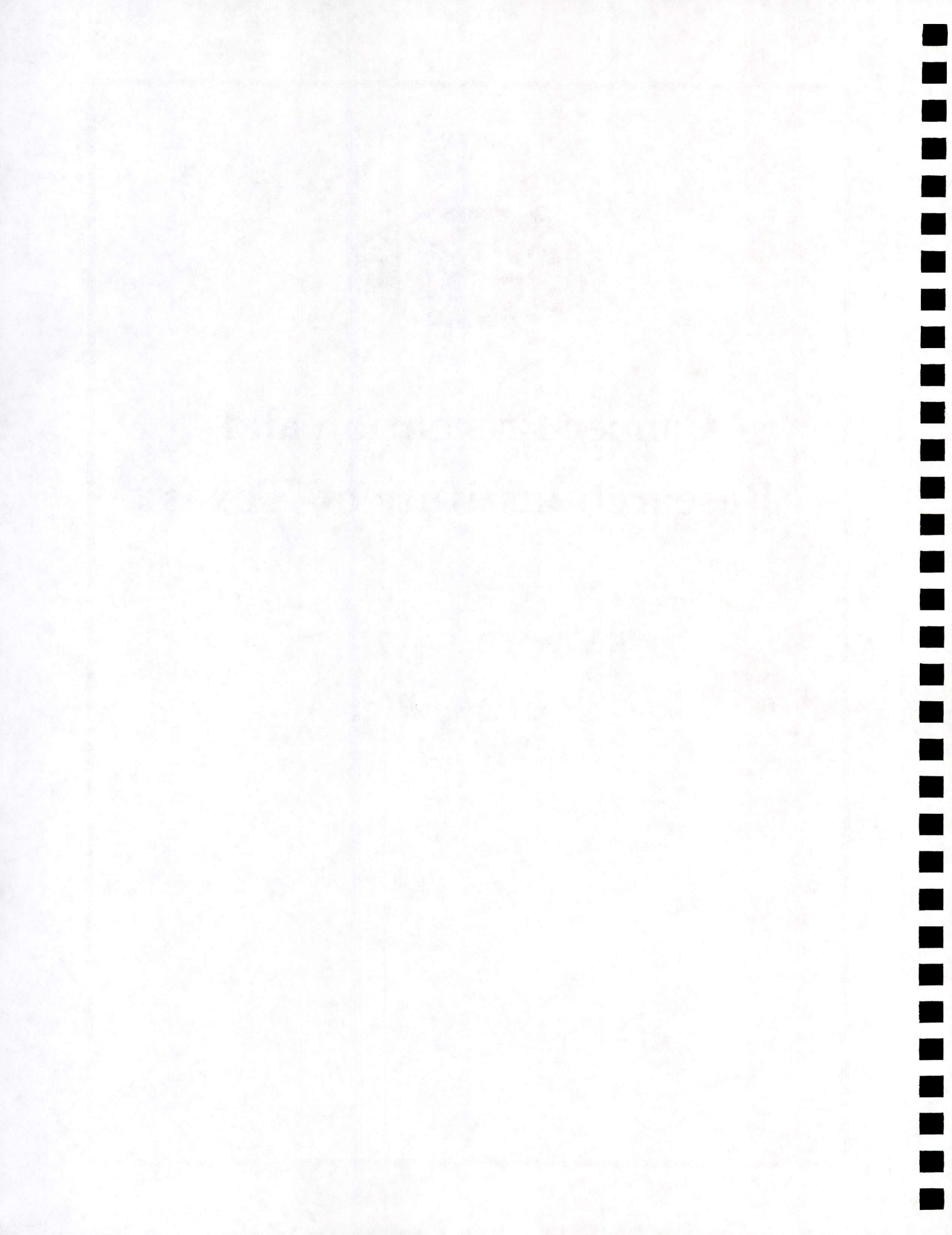


**Cancer Prevention and
Research Institute of Texas**

FY 2013-FY 2017

Strategic Plan





AGENCY STRATEGIC PLAN
FOR FISCAL YEARS 2013 – 2017

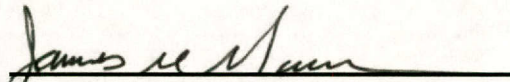
BY

CANCER PREVENTION AND RESEARCH INSTITUTE OF TEXAS

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June 22, 2012

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Statewide Vision, Mission, and Philosophy

In March 2012, Governor Rick Perry issued the following in his *Strengthening our Prosperity: The Statewide Strategic Planning Elements for Texas State Government* statement.

Priority Goals

I am confident we can address the priorities of our citizens with the limited government principles and responsible governance they demand. I know you share my commitment to ensuring that this state continue to shine as a bright star for opportunity and prosperity for all Texans. I appreciate your dedication to excellence in public service and look forward to working with all of you as we continue charting a strong course for our great state:

Ensuring the economic competitiveness of our state by adhering to principles of fiscal discipline, setting clear budget priorities, living within our means, and limiting the growth of government;

Investing in critical water, energy, and transportation infrastructure needs to meet the demands of our rapidly growing state;

Ensuring excellence and accountability in public schools and institutions of higher education as we invest in the future of this state and ensure Texans are prepared to compete in the global marketplace;

Defending Texans by safeguarding our neighbors and neighborhoods and protecting our international border; and

Increasing transparency and efficiency at all levels of government to guard against waste, fraud, and abuse, ensuring that Texas taxpayers keep more of their hard-earned money to keep our economy and our families strong.

The Mission of Texas State Government

Texas state government must be limited, efficient, and completely accountable. It should foster opportunity and economic prosperity, focus on critical priorities, and support the creation of strong family environments for our children. The stewards of the public trust must be men and women who administer state government in a fair, just, and responsible manner. To honor the public trust, state officials must seek new and innovative ways to meet state government priorities in a fiscally responsible manner.

Aim high...we are not here to achieve inconsequential things!

The Philosophy of Texas State Government

The task before all state public servants is to govern in a manner worthy of this great state. We are a great enterprise, and as an enterprise, we will promote the following core principles:

- First and foremost, Texas matters most. This is the overarching, guiding principle by which we will make decisions. Our state, and its future, is more important than party, politics, or individual recognition.
- Government should be limited in size and mission, but it must be highly effective in performing the tasks it undertakes.
- Decisions affecting individual Texans, in most instances, are best made by those individuals, their families, and the local government closest to their communities.
- Competition is the greatest incentive for achievement and excellence. It inspires ingenuity and requires individuals to set their sights high. Just as competition inspires excellence, a sense of personal responsibility drives individual citizens to do more for their future and the future of those they love.
- Public administration must be open and honest, pursuing the high road rather than the expedient course. We must be accountable to taxpayers for our actions.
- State government has a responsibility to safeguard taxpayer dollars by eliminating waste and abuse and providing efficient and honest government.
- Finally, state government should be humble; recognizing that all its power and authority is granted to it by the people of Texas, and those who make decisions wielding the power of the state should exercise their authority cautiously and fairly.

Relevant Statewide Goals and Benchmarking

Higher Education: To prepare individuals for a changing economy and workforce by furthering the development and application of knowledge through teaching, research, and commercialization.

Statewide Benchmarks

- Percentage increase in research and development expenditures in emerging technologies over previous biennium.
- Number of patents obtained in emerging technologies.
- Number of patents obtained by institutions of higher education that are commercialized.
- Number of private sector companies created as a result of activities at public institutions of higher education.

Health and Human Services: To promote the health, responsibility and self-sufficiency of individuals and families by continuing to create partnerships with local communities, advocacy groups, and the private and not-for-profit sectors; and investing state funds in Texas research initiatives which develop cures for cancer.

Statewide Benchmarks

- Number of state funded cancer research grant projects.
- Amount of leveraged dollars invested in state funded research grants projects.

Economic Development: To provide an attractive economic climate for current and emerging industries that fosters economic opportunity, job creation, capital investment, and infrastructure development by promoting a favorable business climate.

Statewide Benchmarks

- Number of emerging technology research commercialization investments awarded.
- Number of nationally recognized researchers recruited to Texas public institutions of higher education as a result of emerging technology research superiority grants.

General Government: To provide citizens with greater access to government services while reducing service delivery costs and protecting the fiscal resources for current and future taxpayers by supporting effective, efficient, and accountable state government operations.

Statewide Benchmark

- Issuance cost per \$1,000 in general obligation debt.

Cancer Prevention and Research Institute of Texas

Mission and Philosophy

Agency Mission

The Cancer Prevention and Research Institute of Texas is the state agency established to create and expedite innovation in the area of cancer research and to enhance the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer; attract, create, or expand research capabilities of public or private institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state; and develop and implement the *Texas Cancer Plan*.

Agency Philosophy

The Cancer Prevention and Research Institute of Texas will maintain the highest integrity and dedication to the mission of finding a cure for cancer. The Institute will become a world-class leader in research and prevention by collaboration with a variety of entities, community leaders, and other organizations involved in the fight against cancer; innovation in the selection of research projects emphasizing immediate or long term medical breakthroughs; commercialization of completed research and education for citizens with culturally appropriate information about ways in which their risks of developing and dying from cancer can be reduced.

Vision

*“CPRIT invests Texans’ money,
working with the best minds, to beat cancer”*

External and Internal Assessment

Overview

Texas voters overwhelmingly approved a constitutional amendment in 2007 establishing the Cancer Prevention and Research Institute of Texas (CPRIT) and authorizing the state to issue \$3 billion in general obligation bonds over ten years to fund groundbreaking cancer research and prevention programs and services throughout the state. House Bill 14, 80th Texas Legislature, is the authorizing statute that charges CPRIT to:

- Create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer;
- Attract, create, or expand research capabilities of public or private institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state; and
- Develop and implement the *Texas Cancer Plan*.

At the time the constitutional amendment passed, the cost of cancer in Texas, direct medical costs as well as morbidity and mortality losses, was \$21.9 billion. In 2011 that cost grew to \$28.1 billion, a 28.6 percent increase.

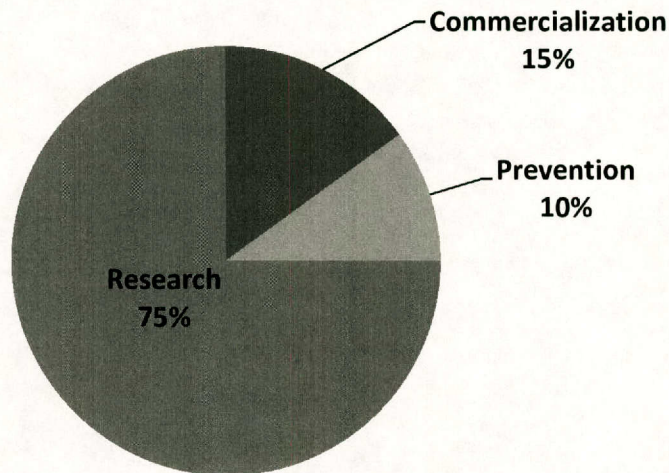
From the initiation of its grant awards program in September 2009 through the end of its first four years concluding in August 2013, CPRIT will have invested more than \$1 billion—one-third—of the funds entrusted to it by voters. This money has been and will continue to be invested in lifesaving cancer prevention screening programs, high-risk innovation research projects, recruitment of outstanding scientists from out of state, research training programs for undergraduate and graduate students, company-based research, health promotion and public education prevention programs, health professional education programs, individual and collaborative research projects, and shared scientific instrumentation at academic institutions. These investments are all targeted at enhancing the capabilities and infrastructure in Texas to improve the research resources for the future growth of the state's biotechnology industry and the know-how of community-based organizations across Texas to provide cancer prevention programs and services that improve the health outcomes of Texans.

At the end of 2011, the total impact of all CPRIT prevention, commercialization and research programs (including initial outlays and downstream effects) associated with CPRIT on Texas business activity was found to be \$2 billion in output (real gross product) and more than 14,000 jobs. Even beyond the potentially life-changing influence of reducing the incidence and severity of the disease, the investment in research, screening, and other prevention activities generates substantial economic impacts. In fact, every dollar invested by CPRIT produces \$4.78 in output (real gross product) and \$1.99 in state and local revenue annually.

**Every Dollar Invested by CPRIT Returns:
(Including Initial Outlays and Downstream Effects)**

\$4.78 in Output (Real Gross Product)	\$1.99 in Annual State and Local Revenue
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**Grant Funding Distribution
As May 2012**



CPRIT relies upon a multi-stage external peer review process to evaluate the applications for grant awards. More than 150 experts in the field of cancer research and/or cancer prevention are appointed by the Institute's Executive Director to serve on Scientific Research and Prevention Program committees conducting peer review. To minimize the potential for conflicts of interest and create a firewall around the review process, all peer review committee members live and work outside of the State of Texas.

The Institute's peer review process is overseen by research, prevention, and commercialization review councils. The review councils assess the evaluations completed by the committees conducting peer review and create a final list of funding recommendations for the Institute's Executive Director. Texas law affords great weight to the review council's funding recommendations, requiring the Executive Director's final recommendations for funding awards to be "substantially based" on the list submitted by the review council. The Executive Director's list is considered final and the Oversight Committee may set aside the funding recommendations only if 8 of the 11 members vote to do so.

Cancer in Texas

Despite great advances, cancer remains the second leading cause of death in Texas, accounting for nearly one of every four deaths (Figure I).¹ It is estimated that in the early part of the 21st century, cancer will overtake heart disease as the leading cause of death in the United States. In 2012, an estimated 39,000 Texans will die from cancer, which equates to more than 100 Texans dying each day. The number of patients with a newly diagnosed cancer is expected to exceed 110,000 in 2012.² Cancer is second only to cardiovascular disease as the most costly chronic disease in the United States.³ A cancer diagnosis often means lengthy, costly treatments, many of which are debilitating, painful, and exhausting. And the financial costs in medical care and lost productivity are staggering, bankrupting families and burdening health care systems. In Texas, a conservative estimate of the annual cost of cancer is \$28.1 billion, which includes a total cost to the Texas economy of some \$139.5 billion in reduced annual spending, \$68.8 billion in output losses per year, and 731,870 lost jobs.⁴ As the population increases, new treatments are discovered, and survival rates continue to increase, it is expected that costs will continue to rise.

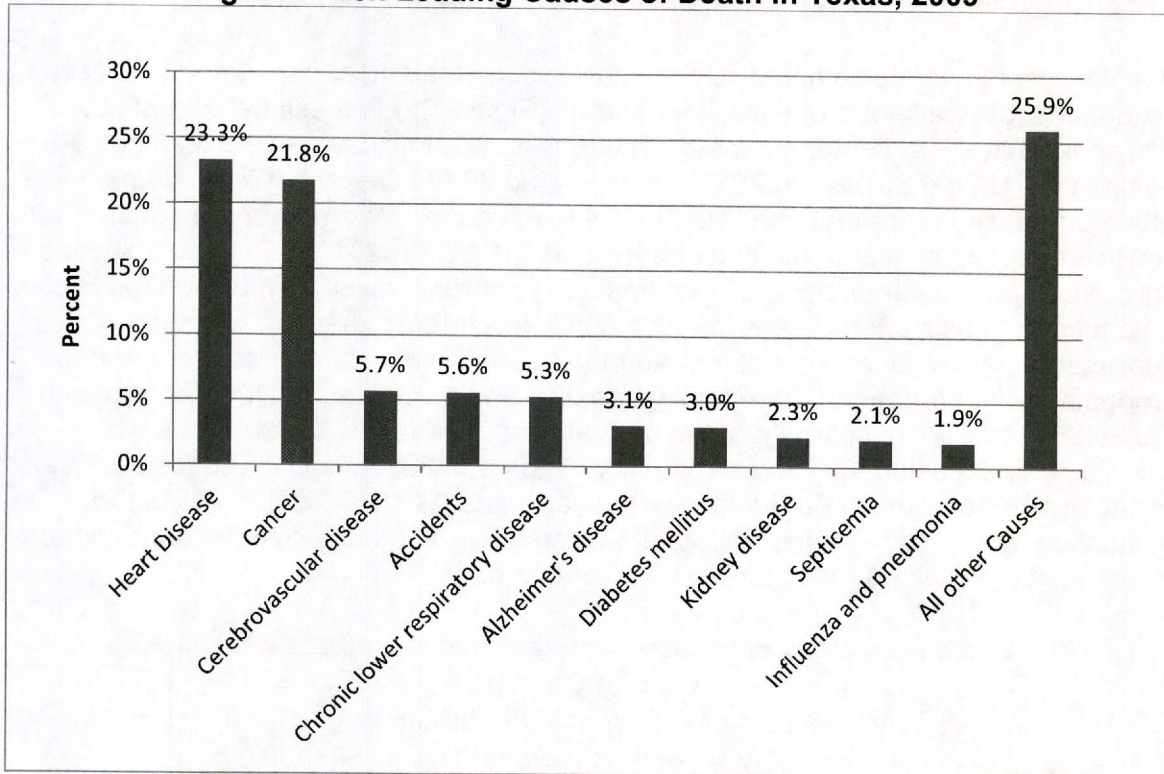
Cost of Cancer

- Annual cost of cancer is \$28.1 billion
 - \$139.5 billion in reduced annual spending
 - \$68.8 billion in output losses per year
 - 731,870 lost jobs

Funding by Cancer Site As of May 2012

▶ Other	33%
▶ Multiple Sites	27%
▶ Breast	9%
▶ Lung	7%
▶ Leukemia	6%
▶ Lymphoma	4%
▶ Prostate	4%
▶ Colorectal	4%
▶ Cervical	3%
▶ Brain	3%
▶ Childhood & Adolescent	2%
▶ Ovary	2%

Figure I - Ten Leading Causes of Death in Texas, 2009¹



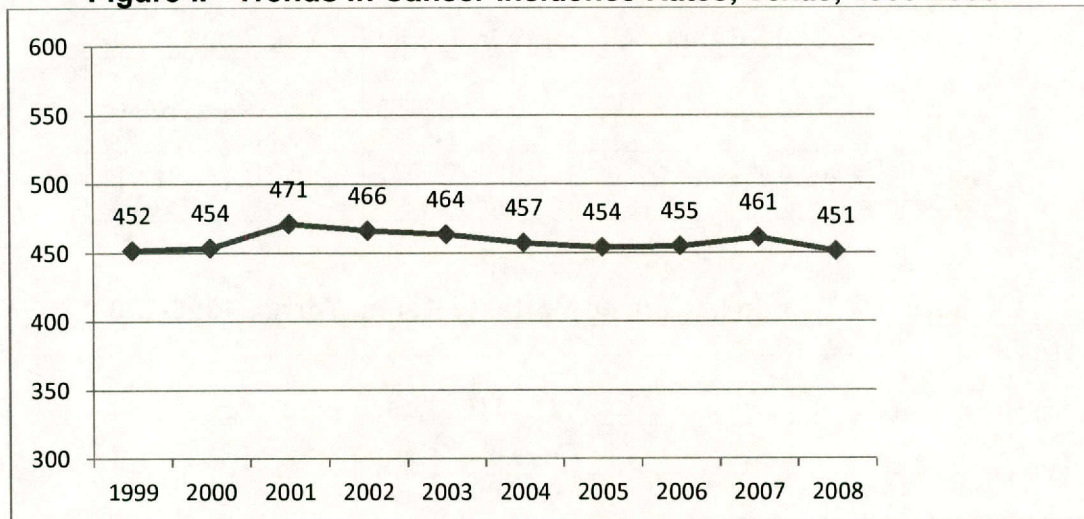
Cancer represents more than 100 distinct diseases, all characterized by uncontrolled reproduction of abnormal cells in the body. Each type of cancer possesses distinct risk factors and manifestations that necessitate different prevention measures and treatments. Some cancers are preventable, while others are successfully treated—even cured—if detected early enough. Survival rates vary greatly, depending on cancer site, stage at diagnosis, access to care, and a host of individual factors. There is no single cause or cure for cancer.

In 2012, the American Cancer Society, the Centers for Disease Control and Prevention, the National Cancer Institute, and the North American Association of Central Cancer Registries issued the Annual Report to the Nation on the Status of Cancer, 1975 – 2008. According to the report, cancer death rates in the United States decreased 1.7% per year among men and an average 1.3% per year among women as well as among children ages 0 to 19 years for the time period, 1999-2008.⁵ This decrease was observed in Texas as well.² The decline is credited to wider use of screening and early detection methods and better treatments that have extended life expectancy after diagnosis.

In order to accelerate this trend, Texas must continue to invest in research and prevention efforts that will help Texans reduce their risk of developing cancer, or detect it early, when treatments are more successful and less costly. CPRIT's goal is to expedite innovation and commercialization in cancer research and to enhance public access to evidence-based prevention programs and services throughout the State, ultimately enhancing the potential for a medical or scientific breakthrough in the prevention of and cure for cancer.

Incidence: Although cancer incidence rates in Texas are decreasing (Figure II), the number of new cancer cases is rising as the population of the State continues to age and grow.²

Figure II - Trends in Cancer Incidence Rates, Texas, 1999-2008²



In 2012, an estimated 110,000 Texans will be diagnosed with cancer. Among those:

- 16,100 Texas women will be diagnosed with breast cancer;
- 16,800 Texas men will be diagnosed with prostate cancer;
- 14,500 Texans will be diagnosed with lung cancer;
- 10,600 Texans will be diagnosed with colorectal cancer;
- 4,700 Texans will be diagnosed with melanoma, a form of skin cancer; and
- 1,250 Texas women will be diagnosed with cervical cancer;
- 980 Texas children ages 0-14 were diagnosed with cancer in 2009 (Approximately).

Cancer is manifested differently in children, the most common cancer sites being blood and bone marrow, brain, lymph nodes, nervous system, kidneys, and soft tissues. An average of 1,316 children and adolescents younger than 20 are diagnosed with cancer each year in Texas.

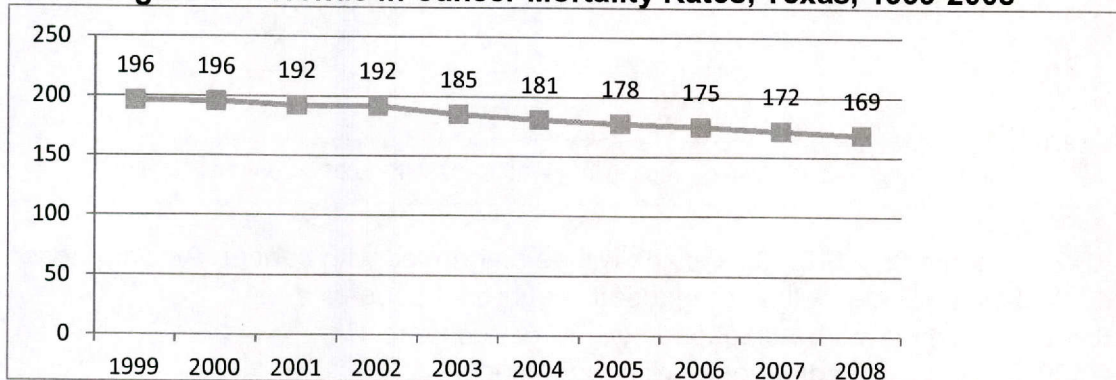
Mortality: Approximately 22 percent of all deaths in Texas were attributed to cancer in 2009 (Figure III), making cancer the second-leading cause of death.¹ The overall cancer mortality rate in Texas decreased by an average of 1.7 percent a year from 1999-2008 (Figure IV).² Similar to cancer incidence, as the population ages and grows, the number of deaths will continue to increase even as the rate decreases. It is estimated that just over 39,000 Texans will die from cancer in 2012. Among the leading causes:

- 10,600 Texans will die from lung cancer;
- 3,700 Texans will die from colorectal cancer;
- 2,900 Texas women will die from breast cancer;
- 2,290 Texans will die from pancreatic cancer; and
- 1,780 Texas men will die from prostate cancer.

Figure III - Cancer Mortality in Texas by Sex, 2009¹

	Total Deaths	Male	Female
All Deaths	162,792	83,142	79,650
Deaths Attributed to Cancer	35,531	18,917	16,614
% Cancer	21.8%	22.8%	20.9%

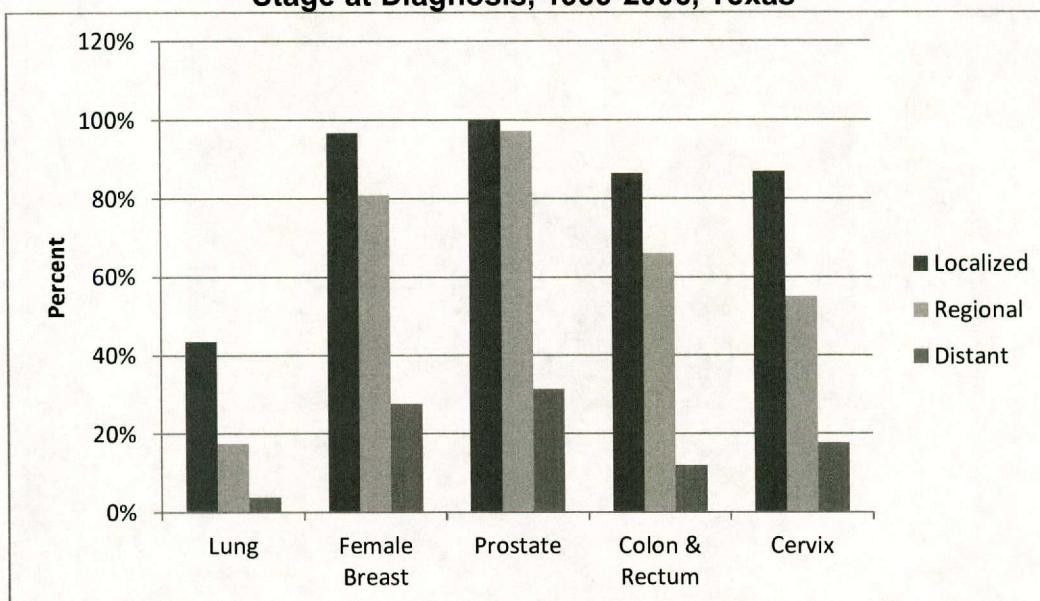
Figure IV - Trends in Cancer Mortality Rates, Texas, 1999-2008²



Cancer is the leading cause of death from disease among children in Texas and the United States. Approximately 13 percent of all deaths in children between the ages of 1 to 14 were attributable to cancer in 2009.¹

Survivors: It is estimated that 457,000 Texans who were diagnosed with cancer in the last ten years are alive today.² Survival differs greatly by the type of cancer and the stage at which the cancer was diagnosed. As Figure V below indicates, five-year survival rates for lung, breast, prostate, colon and rectum, and cervical cancers drop substantially once the cancer spreads beyond the local tumor. Early detection and effective treatments for these cancers greatly improve five-year survival rates.

Figure V - Five-Year Relative Survival Rates by Stage at Diagnosis, 1999-2006, Texas²



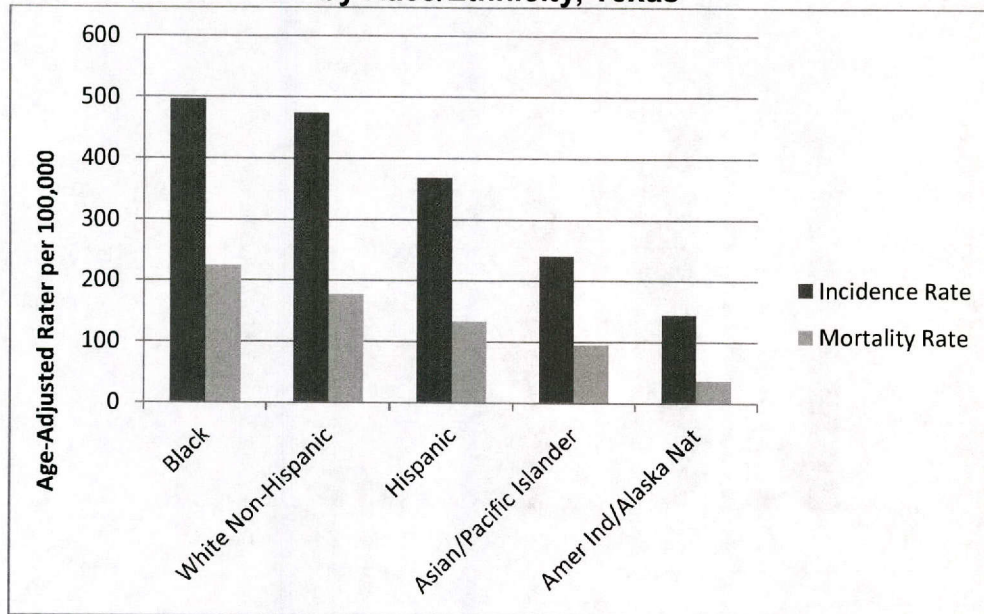
Due to advances in diagnosis and treatment, children with acute lymphoblastic leukemia now have at least an 80 percent 5-year survival rate.⁶ The recent phenomenon of children surviving cancer is causing a host of new questions and policy issues related to their long-term development, education, and insurance coverage needs, as well as research into relative risks for developing new cancers later in life.

Cost: In addition to improving survival chances, detection of cancer at an early stage can significantly reduce the cost of treatment. Early detection also decreases cost in terms of suffering and lost productivity. Cancer costs may contribute up to six percent of total health care expenditures in the United States.³ The estimated annual cost of cancer in Texas is \$28.1 billion, and costs vary substantially across regions of the state and by cancer sites.⁴

Cancer Disparities: Underserved segments of the Texas population are affected by cancer to a greater degree. Some racial and ethnic groups are more likely than others to have cancer discovered at a later stage, leading to higher mortality rates. Rural and low-income populations have geographic and financial barriers to accessing cancer prevention and treatment resources. Barriers are compounded by insufficient numbers of health professionals and facilities in many sparsely populated counties.

Race and Ethnicity: Cancer incidence and mortality rates vary by race and ethnicity (Figure VI). Differences in incidence and mortality rates in some populations can be a result of many factors, including differences in risk factors, access to screening and treatment, and need for culturally sensitive preventive healthcare.

Figure VI - Overall Cancer Incidence and Mortality Rates, 2005-2009, by Race/Ethnicity, Texas²



Blacks bear an excess burden of cancer overall with cancer incidence and mortality rates that exceed those of whites and other racial/ethnic groups.² Both black men and women were diagnosed with colorectal cancer at a rate almost 1.4 times greater than that of non-Hispanic white men and women; colorectal cancer mortality rates were about 1.7 times higher than those of non-Hispanic whites. Prostate cancer incidence and mortality rates were also greater than those of non-Hispanic whites; incidence rates were 1.5 times greater and mortality rates were 2.2 times greater.

Disparities in incidence and mortality among racial and ethnic groups differ by cancer site as well. For example, Hispanic women have the highest incidence rates of cervical cancer compared with other racial/ethnic groups, followed closely by black women, while black women suffer slightly higher mortality rates for cervical cancer, than other racial/ethnic groups.

Income: Low-income populations face financial barriers to accessing cancer prevention and treatment resources. At least 18 percent of the people in Texas live below poverty level, compared to the national rate of 15 percent⁸. The median household income in Texas in 2011 was \$47,464. In addition, Texas has the highest percentage of uninsured population of any state, estimated at 24.6 percent in 2010, or 6.1 million people.

Age: The risk of developing cancer increases with age; adults in mid-life or older are most affected. In Texas, as in the Nation, the growing number of older adults will increase the number of people affected by cancer, thereby making present-day prevention efforts all the more imperative. Over 95 percent of cancer deaths occur among Texans who are age 45 years or older.² With the maturing of the Baby Boom generation, cancer deaths will continue to increase

unless the trend is reversed by a major breakthrough in cancer knowledge and treatment, and significant improvements in prevention and early detection occur for those most at risk.

Geographic Areas: Texas is a unique state, with more than 260,000 square miles and a vastly diverse population. It is not uncommon for rural patients to travel hundreds of miles to access prevention, detection, or treatment services. Cancer incidence and mortality rates vary by geographic area. The reason for these differences is likely due to variation in cancer risk factors (e.g., tobacco use) and population demographics of an area, including age, racial/ethnic makeup, income, and insurance coverage.⁷

Disparities are apparent in the 38-county area of South Texas, where two-thirds of the population is Hispanic.⁹ Cancer incidence is higher in this area (compared to the rest of Texas) for such cancers as stomach, liver, and cervix. An estimated 33 percent of adults from South Texas are uninsured, more than double the national average. Two critical access to care issues facing this region are lack of health insurance and a shortage of health care providers.

Rural Texans are another medically underserved population. Rural Texans tend to be older, have less income, and are less likely to have insurance than their urban counterparts. Residents of rural areas often have less contact and fewer visits with physicians and, in general, lower levels of available preventative care.

Prevention and Control

Cancers that can be prevented or detected earlier by screening, such as cancers of the colon, rectum, breast, and cervix, account for at least half of all new cancer cases.⁶ Other cancers could be greatly reduced if people did not use tobacco, adopted healthy eating behaviors, engaged in regular physical activity, took precautions against excessive sun exposure, and minimized the use of alcohol.

Primary cancer prevention efforts seek to keep a disease from occurring and are the front-line in promoting health and reducing cancer risk in the general public. Secondary prevention seeks to identify and treat asymptomatic individuals who are at risk for developing cancer. Tertiary prevention includes treating and supporting people diagnosed with cancer in order to minimize clinical complications and recurrence. Preventive measures taken today will not guarantee an individual will be cancer-free during his or her lifetime; however, they greatly reduce future risks of disease.

Primary Prevention

Primary prevention strategies give people the knowledge, skills, and resources they need to reduce their risks of developing cancer.

Research suggests that about one-third of cancer deaths are related to overweight or obesity, physical inactivity, and poor nutrition. Adopting healthy behaviors can reduce a person's risk of developing cancers associated with these risk factors.⁶

Vaccines also help reduce cancer risk. The human papillomavirus (HPV) vaccine has been proven effective to prevent most cervical cancers and some vaginal, vulvar, anal, penile, and oral cancers.¹⁰ In addition, the hepatitis B vaccine can help reduce risk of developing liver cancer.

Cigarette smoking has been linked to cancers of the lung, oral cavity and pharynx, larynx, esophagus, bladder, pancreas, kidney, cervix, stomach, and acute myeloid leukemia cancers.² It is estimated that in 2012, approximately 18,400 Texans died from these tobacco-related cancers. Smoking is estimated to cause almost 90 percent of all lung cancer deaths in men and 80 percent in women.¹¹ There is also evidence that suggests smoking can lead to cancers of the colon, rectum, and liver.^{11,12} Reducing smoking-related deaths requires evidence-based, comprehensive, and coordinated efforts to prevent initiation of tobacco use, increase tobacco cessation, and reduce second hand smoke exposure.

Many cases of skin cancer could be prevented by protection from the sun's rays and avoiding indoor tanning. The United States Preventive Services Task Force (USPSTF) supports counseling of children, adolescents, and young adults aged 10 to 24 years who have fair skin about minimizing their exposure to ultraviolet radiation.¹³ Examples of protective behaviors include the use of broad-spectrum sunscreen with a sun-protection factor of 15 or greater, wearing hats or other shade-protective clothing, avoiding the outdoors during midday hours (10 a.m. to 3 p.m.), and avoiding indoor tanning.

Unfortunately, providing information on health risks and benefits does not always lead to adoption of risk-reduction behaviors. Prevention education messages are not always delivered at an appropriate literacy level or in a manner that is culturally relevant for all Texans. Education and awareness must also be followed by strategies that motivate, initiate, and sustain behavior change. Thus, persistent, effective, and culturally sensitive education efforts and support of behavior change become all the more imperative and are a critical part of any prevention program.

Secondary Prevention

Some cancers can be prevented completely if tissue changes are detected early and are removed at a precancerous stage. Screening can also detect some cancers at an early stage, when treatment is more likely to be successful.⁶ When people have signs or symptoms of disease, or have a positive screening test, further medical tests are performed to diagnose the actual existence and extent of disease.

Recommended screening procedures for adults 50 to 75 years of age to detect colorectal cancer include fecal occult blood testing, sigmoidoscopy, or colonoscopy.¹⁴ Detected early at a localized stage, the five-year relative survival rate for colorectal cancer is 90 percent. Unfortunately, only 40 percent of these cancers are caught at this stage. When colorectal cancer has spread to distant sites, the survival rate drops to only 11 percent.⁶ Screening can literally prevent this cancer; therefore, public and professional education efforts, along with improving access to screening could save thousands of lives.

Cervical cancer screening is conducted with the Papanicolaou (Pap) test, an inexpensive test which diagnoses pre-cancerous lesions of the cervix. According to new guidelines from the USPSTF women aged between 21 and 65 should have a Pap smear every 3 years.¹⁵ The test can reveal pre-cancerous lesions as well as cancers. Treatment of pre-cancerous lesions actually prevents cervical cancer, and cervical cancers are essentially 100 percent curable when diagnosed and treated in the precancerous stage.

To promote early detection of breast cancer, the USPSTF currently recommends biennial screening mammography for women aged 50 to 74 years.¹⁶ For women below the age of 50, the USPSTF states that the decision to start regular, biennial screening mammography should be an individual one and should take patient context into account, including the patient's values regarding specific benefits and harms.

Recently, the USPSTF recommended against routine screening for prostate cancer with the PSA blood test.¹⁷ There is no medical consensus about whether screening for prostate cancer reduces mortality or whether early treatment of prostate cancer prolongs life. Men are encouraged to discuss both the benefits as well of the harms of PSA screening with their health care provider. A clearer understanding of the benefits of screening will be especially important to black men, who have rates of prostate cancer nearly twice as high as other groups of men.

While the USPSTF states that more evidence is needed in order to recommend clinical and self screening for the early detection of skin cancer, it does support counseling of

children, adolescents, and young adults aged 10 to 24 years who have fair skin about minimizing their exposure to ultraviolet radiation.^{18,13}

National guidelines for screening and early detection of cancer:

- United States Preventive Services Task Force - <http://www.uspreventiveservicestaskforce.org/recommendations.htm>
- American Cancer Society – www.cancer.org
- Centers for Disease Control and Prevention – www.cdc.gov

Survivorship

The end of cancer treatment is not the end of the cancer experience. A diagnosis of cancer is the beginning of the survivorship journey. The definition of *cancer survivor* has evolved as knowledge and success in understanding cancer has increased. When cancer was considered incurable, the term “survivor” was used to describe family members who survived the loss of a loved one to cancer. Then, physicians began to define “survivor” as someone who had survived five years following a diagnosis. Today, due to the advocacy efforts of such organizations as the National Coalition for Cancer Survivorship (NCCS) and the Lance Armstrong Foundation, the term “cancer survivor” has been redefined. Many private and public organizations now use the term “cancer survivor” to describe those who have been diagnosed with cancer and the people in their lives who are affected by the diagnosis, including family members, friends, and caregivers. This expanded definition acknowledges the complexity of cancer survivorship and the need for personal, familial, and extended resources.

Due to advances in cancer early detection and treatment, people are now living many years beyond a cancer diagnosis. The growing population of cancer survivors, that includes both children and adults, has created a demand for long-term follow-up services and psychosocial support services, as well as a need for public policies that ensure employment and insurance opportunities. Evidence-based survivorship services aimed at reducing the after-effects of cancer diagnosis and treatment are necessary as this population in the state continues to grow.

Prevention Supported by CPRIT Grant Awards

CPRIT’s prevention grant awards will make it possible for prevention strategies and services to reach many more Texans and ultimately decrease the burden of cancer. We have a great opportunity through CPRIT’s mission to fund both the delivery of prevention and early detection programs and services, and also fund research into better means of prevention and early detection.

The ability to reduce cancer death rates depends, in part, on more broadly applying some of the strategies we currently have. There are effective evidence-based strategies available that are currently not being delivered to all communities in Texas. Through prevention programs, we will invest in building our understanding of and capacity to deliver effective community-based interventions so that new technologies and services

are made available to all, especially those who have historically been underserved. Despite successes in reducing cancer incidence and mortality, we cannot become complacent and must increase the rate of progress of cancer prevention and early detection. Unique projects and new partnerships that will apply evidence-based programs and services in novel ways are necessary in order to increase rates of recruitment, provision of services, early detection, and ultimately survival rates.

Screening Outcomes As of May 2012

- 97,164 breast, cervical, and colorectal cancer screenings
- 30,092 people never before screened
- 7,331 abnormal results
- 782 precursors detected
- 322 cancers detected

Prevention Program Priorities: CPRIT will use timely, accurate cancer data to inform our strategic direction, establish priorities, develop targeted RFAs, and to ensure funded projects are addressing the most pressing needs in the state. CPRIT seeks to fund projects that are innovative and collaborative, as well as leverage resources and challenge the status quo for cancer prevention and control programs and services. We will encourage unique projects and partnerships that will apply evidence-based programs and services in new ways in order to increase the current rates of recruitment, provision of services and cancer detection leading to an increase in survival rates.

CPRIT's Cancer Prevention Awards

CPRIT's prevention awards target unique projects and new partnerships, especially those employing novel methods to increase the availability of screening services provided and detection of cancer, and ultimately to increase survival rates.

- **Evidence-Based Cancer Prevention Services** awards deliver evidence-based services in at least one of the following cancer prevention and control areas: 1) Primary cancer prevention (e.g. vaccine-conferred immunity, tobacco cessation); 2) Secondary prevention (e.g., screening/early detection for breast, cervical, and/or colorectal cancer); or 3) Tertiary prevention (e.g., survivorship services such as physical rehabilitation/therapy, psychosocial interventions, navigation services, palliative care). Comprehensive projects that include a continuum of services comprised of all or some of the following are preferred: Public and/or professional education and training, patient outreach, delivery of prevention and screening services, follow-up navigation, and survivorship services.

- **Cancer Prevention Microgrants** focus on improving systems and removing barriers that will increase the delivery of primary preventive services for all cancers and/or screening services. The purpose of this grant mechanism is to support organizations proposing evidence-based strategies in areas of the State that have populations with great need or high incidence and/or mortality rates, but lack the infrastructure to carry out prevention programs or services that are larger in scope.
- **Health Behavior Change Through Public Education** awards deliver health promotion, education, and outreach for prevention, early detection, and survivorship of cancer for the public that, if successful, would increase the number of persons who improve their health behaviors related to the prevention of cancer, obtain recommended cancer screening tests, have cancers detected at earlier stages, and improve their quality of life if they are survivors of cancer.
- **Health Promotion, Education and Training for Public Health Care Professional Audiences** awards deliver health care professional education and training and/or health promotion, education, and outreach for prevention, early detection, and survivorship of cancer for the public that, if successful, would improve the practice and performance of healthcare practitioners and increase the number of persons who improve their health behaviors related to the prevention of cancer, obtain recommended cancer screening tests, have cancers detected at earlier stages, and improve their quality of life if they are survivors of cancer.
- **Texans Conquer Cancer Patient Support Services** provide support services for cancer patients such as transportation to and from treatment, food, and lodging. Successful applicants are eligible for a grant award of up to \$2,500. Approximately \$15,000 in grant funds will be available from the sale of the *Texans Conquer Cancer* specialty license plate.

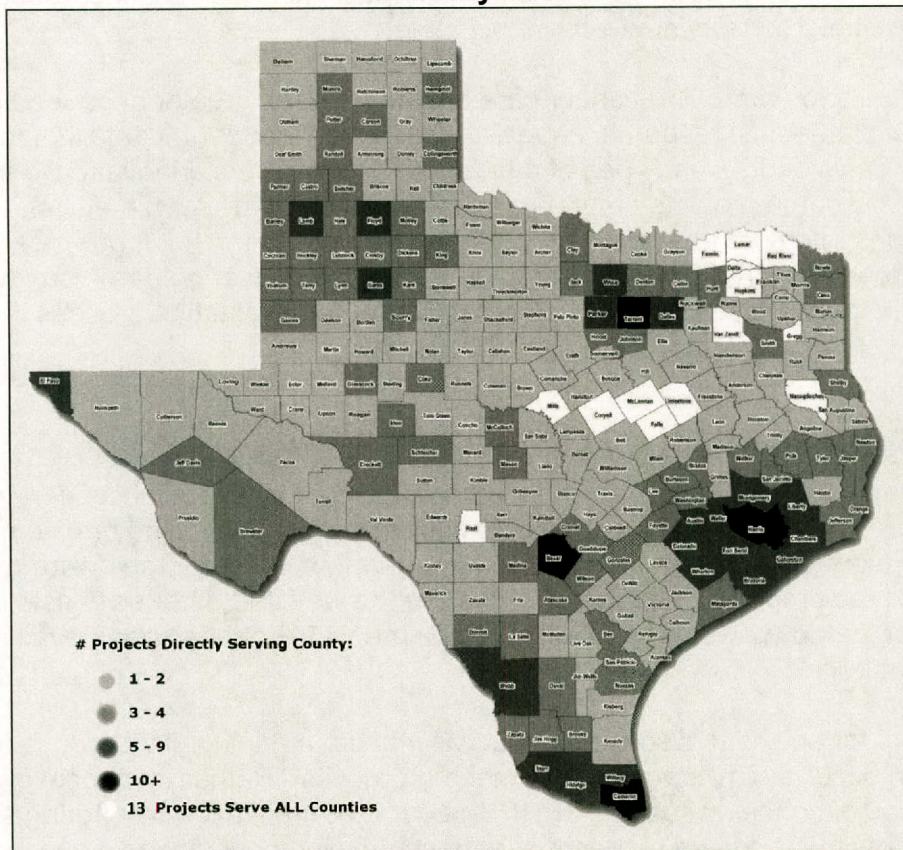
Specifically, CPRIT seeks to fund projects that will:

- Offer effective and efficient prevention programs and services based on the existing body of knowledge about and evidence for cancer prevention in ways that far exceed current performance in a given service area;
- Provide tailored, culturally appropriate, and accurate information on early detection and prevention to the public that results in sustained behavior change and a direct health impact that can be measured;
- Provide effective and innovative outreach strategies to educate the public and increase recruitment into appropriate clinical screening and survivorship programs and services that demonstrate increased rates of early-stage cancer diagnosis and improved quality of life;
- Provide access to state-of-the-art preventive services to individuals;
- Target delivery of preventive services to areas and populations in the State with the greatest need; and
- Deliver evidence-based survivorship services aimed at reducing the after-effects of cancer diagnosis and treatment.

Population priorities include:

- Underinsured and uninsured individuals – focusing on individuals who are significantly out of compliance with nationally recommended screening guidelines;
- Geographically or culturally isolated populations;
- Medically underserved or unserved populations;
- Populations with low health literacy skills;
- Racial, ethnic, and cultural minority populations; and
- Any other populations with low screening rates, high incidence rates, high cancer risk factors, and high mortality rates.

**Counties Served
Active Prevention Projects (75)
As of May 2012**



Research

CPRIT was created with the mission to expedite innovation in the area of cancer research, thereby enhancing the potential for scientific and medical breakthroughs in the prevention of cancer and cures for cancer. In carrying out its mission, CPRIT endeavors to identify and support innovative proposals exploring the causes for cancer and the development of strategies for prevention, diagnosis, treatments, and ultimately, cures.

CPRIT is becoming a world-class leader in cancer research through collaboration with a variety of entities, including public and private institutions of higher education, academic health institutions, governmental organizations, nongovernmental organizations, public and private companies, and others involved in the fight against cancer. Enhancing the research capabilities of public or private institutions of higher education and other public or private entities in Texas will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state.

The opportunity for improving cancer care has never been greater because of rapid advances in biomedical research, especially advances that permit detailed definition of the genetic basis of different types of cancer. CPRIT supports innovation in the selection of research projects emphasizing immediate or long-term medical breakthroughs and commercialization opportunities for research it funds. CPRIT endeavors to ensure that the most creative, innovative cancer research projects are funded, while providing assurance to the public that the evaluation process is impartial and fair.

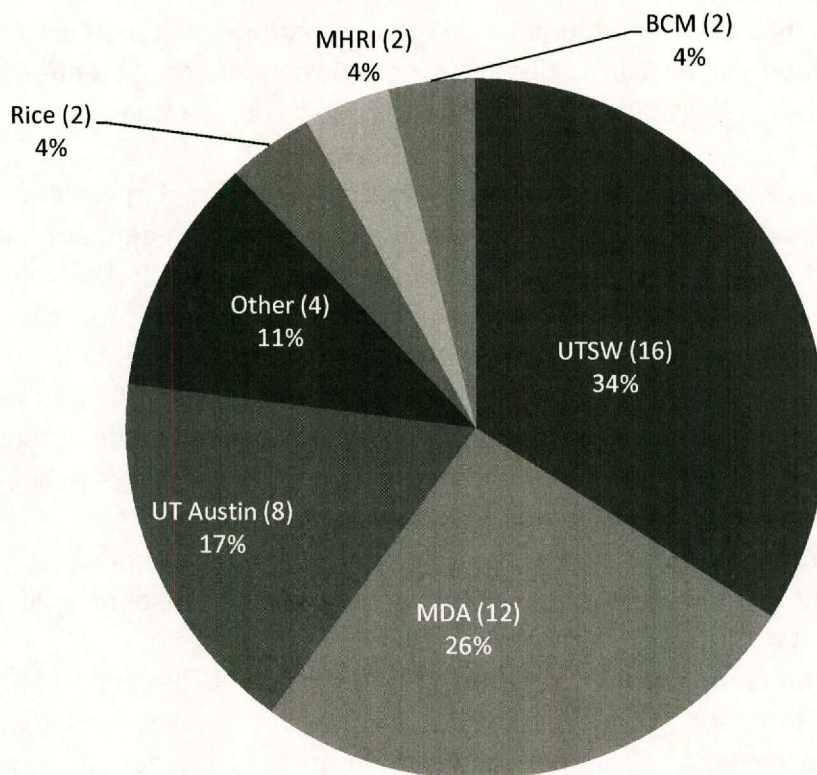
Innovative Cancer Research Supported by Grant Awards

The Institute fosters cancer research in Texas by providing financial support for a wide variety of cancer-related research projects undertaken by public and private entities located in Texas. *Impact* is the single most important criterion for the award of CPRIT funding. Will the proposal, if successful, change the way that other scientists think about and conduct their own research? Will it change the way that physicians evaluate and treat their patients?

The potential for scientific discoveries that will make a meaningful difference to cancer patients can occur at any stage in the research process. Rather than focusing on specific areas of cancer research, CPRIT encourages innovation by offering several types of grants that address research at various development stages, spanning the spectrum from basic science to translational research and clinical applications. Similarly, research grants awarded by the Institute vary in amount and duration -- from the relatively modest short-term projects targeting early-stage ideas to the complex, multi-year research programs at several laboratories and research facilities throughout the state that may take a life-saving drug through its final stages of development.

To stimulate a diverse portfolio of cancer research projects, CPRIT issues requests for application tailored to support particular projects, including projects led by a single investigator, multi-disciplinary collaborative scientific and clinical teams, or research projects undertaken at public and private companies in Texas. CPRIT initiated several awards to enhance and expand the research infrastructure of the state. One award the Institute initiated is a *CPRIT Scholar in Cancer Research* program to recruit exceptional researchers to Texas universities and/or cancer research institutions to enhance innovative programs of excellence in the state by providing scientific and programmatic support for promising first-time, tenure-track faculty; scientists with a critical expertise to enhance a collaborative research team; as well as rising stars and established outstanding scientific investigators. This program together with cancer research training awards for undergraduate and graduate students at Texas academic institutions will enhance Texas' research capability for years to come.

**CPRIT Scholars
Approved Awarded – As of May 2012**



All Institute-funded research is conducted in state by Texas-based scientists and reflects CPRIT's mission to attract and expand the state's research capabilities and create high-quality new jobs in Texas.

CPRIT's Cancer Research Awards

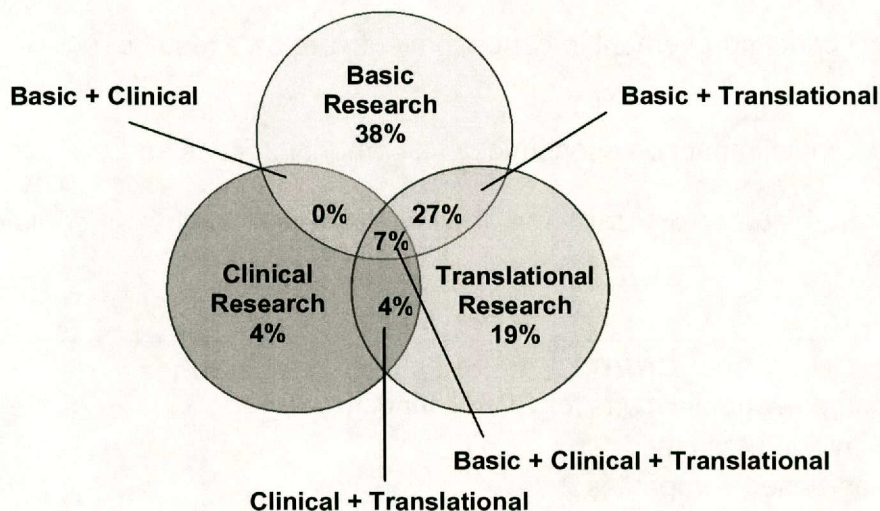
CPRIT's research awards span the spectrum from basic science to translational research and clinical applications and vary in amount and duration from relatively modest short-term projects targeting early-stage ideas to complex, multi-year research programs at laboratories and research facilities throughout the state.

- **Recruitment awards** help to bring superior cancer researchers at different career stages to Texas academic institutions to establish laboratories or clinical research programs and contribute to the research talent in the state.
- **High Impact-High Risk awards** are designed as relatively inexpensive, short-term awards (\$200,000 over 24 months) to give investigators seed money to explore especially exciting but risky approaches to cancer research.
- **Individual Investigator awards** support innovative research projects directed by one scientist addressing critically important questions that will significantly advance knowledge of the causes, prevention, and/or treatment of cancer.
- **Multi-Investigator awards** fund large-scale, collaborative, cross-disciplinary research among several investigators for projects that cannot be effectively addressed by an individual researcher or a group of researchers within the same discipline
- **Training awards** sustain specialized cancer research training programs to promote the next generation of investigators and leaders in cancer research. Individuals from underrepresented racial and ethnic groups, individuals with disabilities, and individuals from disadvantaged backgrounds are especially encouraged to participate in CPRIT's training programs.
- **Shared Instrumentation awards** underwrite the acquisition of major research equipment and instruments at Texas research institutions whose purchase can be justified on a share-use basis among a group of investigators to support the goals of scientifically significant cancer research projects.
- **Core Facilities awards** fund the development or enhancement of core facilities that will provide valuable services to enhance the outcomes of scientifically meritorious cancer research projects.
- **Bridging The Gap: Early Translational Research awards** support projects that "bridge the gap" between promising new discoveries achieved in the research laboratory and commercial development for a therapeutic, device, or diagnostic assay through activities up to and including preclinical proof-of-principle data that demonstrate applicability to the planned clinical scenario.

Research Grant Awards Leverage Additional Resources for Cancer Research

CPRIT requires every research award recipient to certify that they have their own funds dedicated to the cancer research project. The recipient's matching funds must equal at least one-half of the Institute's grant award and be spent on the same area of cancer research. Matching funds may be raised from investors, contributed by donors, or acquired through other federal, state or non-profit grant programs. The Institute's matching fund requirement means that over the course of the next decade, CPRIT research awards will add an additional \$1.4 billion to cancer research funding in Texas.

Research Type
As of May 2012



Commercialization

Because groundbreaking research is most valuable when it can be translated into products that are available to Texans, a crucial component of the Institute's mission is to create and support infrastructure in Texas that accelerates the movement of new cancer drugs, diagnostics, and therapies from the laboratory to the patient. The Institute's ability to promote commercialization pathways distinguishes it from more traditional cancer research funding sources.

By engaging the business community and encouraging entrepreneurial approaches, Texas will see a return on its investment in research and enhance the opportunities for breakthrough cancer-related technologies. Commercializing cancer research benefits Texans in a variety of ways, including the introduction of new products; the creation of new, highly skilled jobs; increased economic activity; enhanced state revenues; and reduced health care costs and lost productivity.

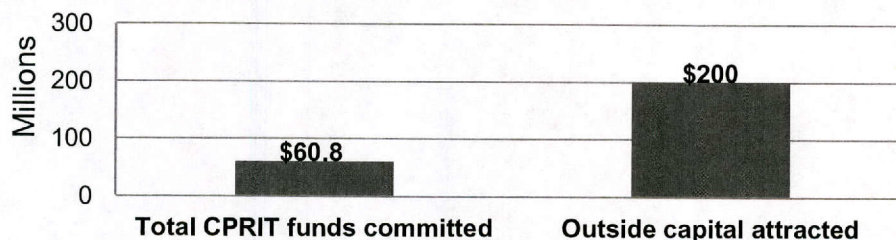
The guiding principles of the Commercialization program are three-fold:

1. A significant improvement in cancer patient care as a result of our commercialization efforts,
2. A substantial impact on economic development in Texas and,
3. High returns (cash on cash) from the investments made by our commercialization efforts.

CPRIT Commercialization Milestones

- 158 company applications for CPRIT funding
- \$60.8 million committed
- 9 Texas-based companies
- Combined CPRIT and private capital of \$260 million could result in more than 3,380 new jobs in Texas over the next 3 years

**CPRIT Funds Committed and Outside Capital Attracted
As of March 2012**



Intellectual Property Policies for Institute Funded Research

Benefits like new products and increased economic activity are realized only when knowledge gained by CPRIT researchers is brought into the public domain through intellectual property agreements that encourage additional investment from the private sector to develop and commercialize new products. Texas law requires all grant award contracts issued by the Institute to include an intellectual property agreement that allows the state to collect royalties, income and other benefits realized as a result of Institute-funded projects. The Institute's intellectual property policies are designed to promote the efficient and diligent commercialization of diagnostics and therapies into new products that benefit Texans.

Consistent with its legislative obligation, the Institute will monitor the commercialization efforts of its grant recipients and provide input, if necessary, at specific critical stages to augment the power and capabilities of university technology transfer offices and emerging bioscience companies. The Institute is able to bridge the gap between early stage discoveries and product development with additional resources, expediting the transition of discoveries into commercially-available products, prevention measures, diagnostics, and treatments available to Texans.

Centralized, systematic reporting of the intellectual property created with Institute funding benefits the state because the information can be used to create a database that serves as a critical source of information for researchers and a sustainable cancer industry in Texas.

The state's investment in cancer research will continue to pay dividends through additional breakthroughs and commercial efforts for activities that are not directly funded by CPRIT. CPRIT encourages open dissemination of Institute-funded discoveries and research tools throughout the scientific community with non-exclusive, royalty-free licenses for non-profit institutions pursuing research, educational, or other non-commercial purposes.

CPRIT's Cancer Commercialization Awards

CPRIT's commercialization awards are designed to find and fund innovative companies already in the state or willing to relocate to Texas to develop promising new therapies and to build and sustain the state's life sciences infrastructure. Eligible stages of development for these commercialization awards include translational research, proof-of-concept studies, preclinical studies, and Phase I or Phase II clinical trials. By exception, Phase III clinical trials and later stage commercialization projects will be considered where circumstances warrant CPRIT investment.

- **Company Commercialization** awards support development of commercially-oriented products or services (e.g. therapeutics like small molecules and biologics, diagnostics, devices, and potential breakthrough technologies, including software and research discovery techniques) that will eventually be approved for the diagnosis, prevention, or treatment of cancer. These companies must be Texas-based. This is a three-year funding program with an opportunity for renewal after the term expires. There is no limit on amount as funding is milestone driven.
- **Company Relocation** awards were created to attract industry partners in the field of cancer care to advance economic development and cancer care efforts in the state companies to Texas with proven management teams who are focused on exceptional product opportunities to improve cancer care. To be eligible for the award, company applicants must presently be domiciled outside Texas, and the majority of the staff, including C-level executives, must be willing to relocate to and remain in Texas for a specified period upon funding. This is a three-year funding program with an opportunity for renewal after the term expires. There is no limit on amount as funding is milestone driven.
- **Company Formation** awards help fund the formation and establishment of new start-up companies (with no previous rounds of professional institutional investment) in Texas that will develop products to significantly impact cancer care. These companies must be Texas-based or be willing to relocate to and remain in Texas for a specified period upon funding and must commit to headquartering and registration in Texas with the majority of staff residing in Texas. This is a three-year funding program with an opportunity for renewal after the term expires. There is no limit on amount as funding is milestone driven.
- **Texas Life Science Incubator Infrastructure** awards seek to support infrastructure programs designed to create and sustain one or more life sciences incubators in Texas. There is no limit on amount as funding is milestone driven.

Strategic Direction and Priorities

CPRIT followed the lead of organizations such as the National Cancer Institute (NCI), the American Cancer Society, the Lance Armstrong Foundation, and the Komen for the Cure to establish a scientific peer review process through which all research and prevention grant proposals are thoroughly reviewed and scored. Scientific peer review provides an objective evaluation of the proposed hypothesis, methodology to prove the hypothesis, and prospective findings. Because CPRIT makes awards only to organizations in Texas, it recruits scientific experts who live and work outside of Texas to participate on the peer review panels to reduce any potential conflict of interest between the reviewers and the proposals under review.

The National Cancer Institute (NCI) has officially designated the Cancer Prevention and Research Institute of Texas (CPRIT) as a NCI-approved funding entity. The NCI certification involves a comprehensive assessment of CPRIT's peer review process to ensure that it conforms to National Institutes of Health (NIH) standards, including conflict of interest protections.

CPRIT's designation as a NCI-approved funding entity is important because it means that the four comprehensive cancer centers in Texas are able to include CPRIT research grant funding as part of their research base calculations in order to maintain or earn NCI Cancer Center designations. This enhances Texas' ability to leverage additional federal funding for cancer research and raises Texas' profile as a center for cancer research.

Any research proposals received from companies require an additional due diligence review to determine whether there is a commercial path for the prospective discovery in order to make it available in health care practice to cancer patients for treatment or to the general population as a preventive measure, such as a vaccination. The commercialization review is unique to CPRIT among cancer grant-making organizations and ensures that CPRIT is investing in research on discoveries with the highest probability of reaching and benefiting people.

CPRIT continues to outsource the management of its online application system and proposal review process along with the coordination of its peer review meetings to SRA International, Inc. SRA International's depth of scientific and information technology expertise has efficiently and effectively supported CPRIT's processes from the beginning of the grant cycle with requests for applications to the end with peer reviewers' recommendations.

At the outset of the establishment of CPRIT, the Oversight Committee made a strategic decision not to allocate specific amounts or percentages of funds among certain types of prevention or research projects nor among certain types of cancer. Instead, CPRIT has funded prevention programs which align with the goals laid out in the *Texas Cancer Plan*, such as: primary prevention and risk reduction; screening and early detection, diagnosis, treatment and palliation; quality of life and survivorship; infrastructure; and research and commercialization.

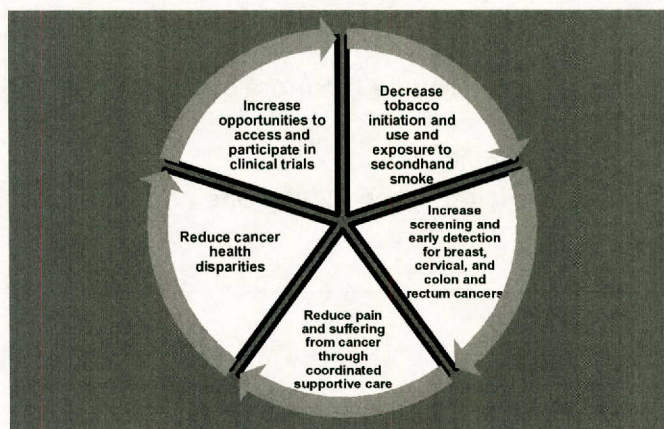
Funding decisions for research awards are based on 10 core principles laid out in state law (Texas Health and Safety Code, Chapter 102). These principles address funding proposals that:

1. could lead to immediate or long-term medical and scientific breakthroughs in the area of cancer prevention or cures for cancer;
2. strengthen and enhance fundamental science in cancer research;
3. ensure a comprehensive coordinated approach to cancer research;
4. are interdisciplinary or interinstitutional;
5. address federal or other major research sponsors' priorities in emerging scientific or technology fields in the area of cancer prevention or cures for cancer;
6. are matched with funds available by a private or non-profit entity and institution or institutions of higher education;
7. are collaborative between any combination of private and non-profit entities, public or private agencies or institutions in this state, and public or private institutions outside this state;
8. have a demonstrable economic development benefit to this state;
9. enhance research superiority at institutions of higher education in this state by creating new research superiority, attracting existing research superiority from institutions not located in this state and other research entities, or enhancing existing research superiority by attracting from outside this state additional researchers and resources; and
10. expedite innovation and commercialization, attract, create, or expand private sector entities that will drive a substantial increase in high-quality jobs, and increase higher education applied science or technology research capabilities.

Texas Cancer Plan

CPRIT is charged by state statute with the responsibility of facilitating the development of the *Texas Cancer Plan (Plan)* and supporting its implementation. The *Plan* aims to reduce the cancer burden across the state and improve the lives of Texans. As the statewide call to action for cancer research, prevention, and control, the *Plan* identifies the challenges and issues that affect our state and presents a set of goals, objectives, and strategies to help inform and guide communities in the fight against cancer. The five priority areas set forth in the *Plan* are shown below.

Texas Cancer Plan Priorities 2012



Major Program Collaborations

CPRIT encourages Texas academic institutions and other major research entities to work together to develop game-changing projects that speed the understanding, prevention, and treatment of cancer. CPRIT focuses on initiatives that promote team science and collaborative endeavors.

As a result CPRIT awarded \$25 million to a collaborative among 14 founding academic research institutions and community-based oncologists for the development of the Statewide Clinical Trials Network of Texas (CTNeT). Support for clinical research is vital in order to increase the availability of FDA-approved drug treatments that improve cancer patient outcomes in Texas and beyond. In order to accelerate progress in cancer care, discoveries from research laboratories must be translated into the clinical setting more efficiently and clinical trials must be completed more rapidly in diverse patient populations. CTNeT's clinical trials will be more efficient because it has established coordinated and centralized governance, oversight and advisory boards to monitor the clinical trials and patient safety against established standards and metrics. The network of academic research centers and community-based oncologists means that cutting-edge treatments will be available to cancer patients across Texas wherever they live, not only cancer patients who live close to a major academic research institution or able and willing to travel to one regularly. Numerous studies have suggested that patients receive better care if they participate in a clinical study.

Closely related to this effort is the Institute's support for statewide data and tumor repositories. By creating a statewide biorepository with high quality tumor samples, the information gained from the molecular characterization of the cancers in high quality tumor samples will result in the creation of a data warehouse of cancers and effective treatments for those cancers which can be turned into real results for patients. Texas can be a leader in this area by developing streamlined administrative and legal systems that enhance the operations of tumor and tissue banks.

Statewide Clinical Trial Network CTNeT

- **Statewide network** to provide the most **cutting edge therapies** to Texans all around the state
- CPRIT awarded \$25 million
- 14 founding academic research institutions and community-based oncologists

Institute Partnerships

Private sector partnerships are essential to CPRIT's success. A close affiliation with the American Cancer Society allows Institute projects to reduce duplication and fill needed gaps in cancer services. Together, our organizations have launched efforts to reduce colon cancer, tobacco use, prostate cancer, and improve quality of life for cancer survivors.

At the local level, Institute initiatives bring together non-profits, American Cancer Society units, health care professionals, county and city health departments, cancer foundations, cancer centers, teaching institutions, and business and community leaders, working together to reduce their community's cancer risks.

Institute staff and board members serve on advisory bodies, working committees, and task forces of other cancer fighting organizations and other state agencies to ensure all our efforts are well coordinated, and to prevent duplication of effort. Such coordination is vital to optimize available cancer control resources.

Steady and clear coordination with federally funded cancer programs, including the Texas Cancer Registry (TCR) and the Breast and Cervical Cancer Control Services, at the Texas Department of State Health Services (DSHS) ensure our two agencies create synergy in our cancer control efforts. CPRIT works closely with the TCR, serving on its advisory council and relying on the TCR to supply important data and statistics for cancer planning and monitoring of Institute initiatives. The TCR collects, maintains, and disseminates the highest quality cancer data. The TCR serves as the foundation for

measuring the Texas cancer burden, comprehensive cancer control efforts, health disparities, and progress in prevention, diagnosis, treatment, and survivorship.

To ensure strategic coordination among state agencies involved in the fight against cancer, the Health and Human Services Commission, DSHS, and CPRIT have identified several opportunities for short- and long-term collaboration. These opportunities include joint strategic planning and cancer-related initiative development as well as program coordination. Another opportunity involves co-locating the TCR at CPRIT to enhance strategic collaboration and attainment of shared goals. To formalize these collaborative opportunities, the CPRIT and DSHS have a Memorandum of Understanding for TCR employees to be housed at CPRIT.

Close collaboration between the CPRIT and TCR fulfills many of the Institute's legislative directives and provides better access to data regarding the cancer burden across Texas. In particular, it allows the Institute to:

- Better target prevention services to have the greatest health impact for Texans by identifying populations and geographic areas of the state with the greatest cancer burden
- Assist grantees by ensuring they have the most accurate data to assess the cancer burden in their communities and measure the progress made with CPRIT funds
- Measure the return on Texas' \$3 billion investment in cancer research and prevention.

Working closely with the TCR, the Institute monitors all available data sources, including national, state, and regional cancer mortality and prevalence rates, and Behavioral Risk Factor Surveillance System (BRFSS) and Youth Risk Behavior Survey (YRBS) results to determine areas of greatest need and to monitor the state's success in achieving its goals. A reduction in cancer incidence and mortality are the ultimate indicators of success in cancer control, although prevention strategies may take decades to show an impact on cancer incidence and deaths. For this reason, the Institute has developed interim measures that can be used to extrapolate the longer term impact of funding invested in cancer research and prevention projects.

Alignment of CPRIT and TCR also allows for a process of continued improvement and increased infrastructure support, establishing the TCR as an expanded cancer registry and enabling the TCR to become the top-ranked cancer registry in the nation.

Recent Federal and State Legislation

Senate Bill 1421, 82nd Texas Legislature, Regular Session, expands CPRIT's revenue sharing options to allow CPRIT to take securities or equity in a company receiving an award, giving CPRIT more flexibility to maximize the ultimate return on the state investment. CPRIT was originally limited to receiving royalty payments. In addition, this legislation protects intellectual property submitted to CPRIT as part of an application for cancer research funding by researchers at private universities, research institutes, and companies. It also protects intellectual property and other proprietary technical information filed with CPRIT that may be required by CPRIT's reporting process for funded grants by these same types of organizations.

House Bill 2251, 82nd Texas Legislature, Regular Session, removed the requirement that CPRIT issue all bond funding related to a multiyear cancer project in the year the award is made and hold the money in an escrow account until it is distributed to the project. CPRIT must now issue and distribute only the funding that is needed by a project each year of the award.

Since the passage of federal health care reform, there have been no federal initiatives with any impact on CPRIT.

Customer Feedback

CPRIT's direct customers are the individuals and entities applying for cancer research and prevention grant awards. The agency surveyed these professionals to assess their satisfaction in working with CPRIT and the CPRIT online Grant Application Receipt System during the grant application cycle.

Survey results indicated that the professionals who applied for CPRIT grant awards online agreed that the online receipt process was easy to use and that their grant submission was successful. The results further specified that the requirements and instructions were clearly described in the request for application and in the receipt system. In addition, the survey showed that the helpdesk staff were courteous, responsive, and that the customer received assistance in a timely manner. Suggestions and feedback from customers are vital and staff will review processes against survey results and make revisions whenever changes are necessary to improve customer service.

Other sources of input are important to funding the best cancer grants in order to save lives and prevent cancer. CPRIT has a number of advisory committees that provide feedback to the Oversight Committee members. CPRIT staff also maintain relationships with other states engaged in comprehensive cancer control as well as national organizations like the Centers for Disease Control and Prevention, the National Institutes of Health, the American Cancer Society, the Lance Armstrong Foundation, the Intercultural Cancer Council, and C-Change to stay informed of best practices in cancer prevention and control.

Agency Goals; Objectives and Outcomes Measures; Strategies and Output; Efficiency; and Explanatory Measures

GOAL: 1
Cancer Research and Prevention Services

OBJECTIVE: 1
To create and expedite innovation in the area of cancer research and prevention services

STRATEGY: 1.1.1.
Award Cancer Research Grants

OUTCOME

1. Non-State Funds Leveraged as Match for Research Grants (in millions)
2. Total Research Matching Fund Expenditures

OUTPUT

1. Number of Researchers Recruited to TX to Conduct Cancer Research
2. Number of Entities Relocating to TX for Cancer-Research Related Projects

EXPLANATORY

1. Average Dollar Amount of Research Grants Awarded
2. Number of Research Grant Awards
3. Number of New Jobs Created and Maintained
4. Number of Published Articles on CPRIT-Funded Research Projects

STRATEGY: 1.1.2.
Award Cancer Prevention Grants

OUTCOME

1. Percent of Texas Counties with Cancer Prevention Services and Activities Initiated as addressed in the Texas Cancer Plan through Grant Awards

OUTPUT

1. Number of People Served by Institute-funded Prevention and Control Activities

EXPLANATORY

1. Annual Age-adjusted Cancer Mortality Rate

STRATEGY: 1.1.3.
Grant Review and Award Operations

GOAL: 2
Indirect Administration

OBJECTIVE: 2
Indirect Administration

STRATEGY: 2.1.1.
Indirect Administration

Historically Underutilized Businesses

CPRIT makes a good faith effort to purchase and award contracts to historically underutilized businesses (HUB) in accordance with the Texas Government Code, Title 10, Subtitle D, Chapter 2161 and rules established by the Comptroller, Texas Procurement and Support Services Division (TPASS) in Texas Administrative Code, Title 34, Part 1, Chapter 20, Subchapter B.

A HUB expenditure is a payment made to a business that has been certified as a HUB by the Comptroller TPASS and classified under a Comptroller Object Code chosen for tracking HUB expenditures. The Comptroller TPASS tracks the Institute's HUB expenditures through the Uniform Statewide Accounting System.

State agencies are required to include in their strategic plans agency goals, objectives, performance measures, and strategies addressing their HUB expenditure plans located in the Internal Assessment. CPRIT's purchases consist of other services, professional services, and commodities. The operating budget for a small agency limits the dollars spent; however, the Institute continues to increase HUB purchases.

Historically Underutilized Businesses Plan

CPRIT will continue to encourage increased participation of Historically Underutilized Businesses (HUB) in procurement and contracting. During fiscal years 2011-2015, CPRIT will make a good faith effort to purchase and contract with HUBs to achieve the target goals established for state agencies.

Figure XV HUB Plan

	The Institute will implement existing polices and procedures to ensure meaningful and substantial inclusion of HUB's in all possible agency purchases
Objective	To attain agency HUB targets for professional services, other services and commodities over the next year
Outcome Measure	Percentage of total dollar value of purchasing contracts awarded to HUB's
	Implement the agency plan for increasing HUB purchases
Measures	<ul style="list-style-type: none"> • Number of HUB contractors contacted for bid proposals • Number of HUB contracts awarded • Dollar value of HUB contracts awarded • Percentage of HUB expenditures attained

CPRIT grant award recipients are strongly encouraged to make a good faith effort to use the services, products, or materials provided by a certified HUB. The CPRIT Project Guide includes a requirement that grant recipients must submit a quarterly report identifying their efforts to procure goods and services through HUBs. Staff verifies the reports submitted. The Institute is proactive in notifying eligible contractors about procedures for becoming certified as HUBs.

CPRIT will continue to analyze internal quarterly expenditures made with HUBs and look for opportunities to increase HUB procurements.

Figure XVI Annual Internal HUB Measures for FY 2011

Measures	<ul style="list-style-type: none"> • Number of HUB contractors contacted for bid proposals 0 • Number of HUB contracts awarded 13 • Dollar value of HUB contracts awarded \$ 214,520 												
Percentage of HUB Expenditures Attained	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Percent Attained</th> <th style="text-align: center;">Unadjusted Goal</th> </tr> </thead> <tbody> <tr> <td>Professional Services</td> <td style="text-align: center;">0 %</td> <td style="text-align: center;">20 %</td> </tr> <tr> <td>Other Services</td> <td style="text-align: center;">2.98%</td> <td style="text-align: center;">33 %</td> </tr> <tr> <td>Commodities</td> <td style="text-align: center;">40.5%</td> <td style="text-align: center;">12.6 %</td> </tr> </tbody> </table>		Percent Attained	Unadjusted Goal	Professional Services	0 %	20 %	Other Services	2.98%	33 %	Commodities	40.5%	12.6 %
	Percent Attained	Unadjusted Goal											
Professional Services	0 %	20 %											
Other Services	2.98%	33 %											
Commodities	40.5%	12.6 %											

Technology Resource Planning

Technology Assessment Summary

Vision

The vision for the CPRIT Information Technology (IT) division is to foster an environment that embraces the change that technology represents while leveraging technology to promote an accessible, collaborative, supportive and empowering culture internally within our agency and fostering a spirit of transparency in service to the people of Texas. As a supporting foundation of this vision, Information Technology (IT) is committed to the following core values and principles: accountability, integrity, teamwork, efficient and effective innovation, and responsiveness.

Core Information Technology Processes

Information Technology (IT) acts as an operational foundation for CPRIT serving the needs of agency staff, partners and the general public. This foundation has three major components: infrastructure management (ensure daily operations, security, continuity), direct user/public support (troubleshooting, education), and agency/departmental level technology planning support (planning, business analysis, sustainability).

Mission and Strategic Goals

The overall mission of Information Technology (IT) is to provide a reliable, consistent and secure information technology infrastructure that advances the core objectives of the Institute, enhances administrative operations, is driven by institutional priorities, incorporates stakeholder needs, and complies with statewide initiatives and goals set forth by the Department of Information Resources. IT's basic goals are access, collaboration and innovation, privacy and security, quality service, and "greener" IT. To this end, we have defined five broad strategic goals that encompass and support our department's mission.

Goal 1: Anywhere/Anytime Access

Public and agency stakeholder access to information should not be limited or restricted because of physical location or time of day. IT will utilize redundant services and web-based tools to provide secure access to internal agency systems and hosted applications for agency personnel. Additionally, the agency website and other web-based services will be used to provide agency constituents and the general public with access to agency contact information, Institute mission objectives, grant request for applications, information on awarded grants, agency guidelines and policies.

Goal 2: Collaboration and Innovation

We accept the challenge of thinking outside of the box. By leveraging IT, staff knowledge and embracing new technologies, we will create efficient and cost-effective solutions to address agency issues and objectives. Focusing on the deployment and utilization of collaborative tools will enable staff to engage with each other and the public at large, working together to support and generate new ideas and processes to assist in the delivery of truly innovative and efficient services and solutions.

Goal 3: Privacy and Security

Protecting critical agency resources and sensitive information from service vulnerabilities, accidental disclosure, theft and cyber attacks are of paramount concern. IT will continue to ensure that infrastructure components are sufficiently robust and protected by developing processes in which periodic independent audits and internal policy reviews regularly occur.

Goal 4: Quality of Service and Continuous Improvement

Utilizing performance metrics and stakeholder feedback to determine IT effectiveness and to quantify performance will maintain a highly responsive and nimble enterprise environment which fosters a spirit of constant learning and comprehensive technical process examination to continue improving and evolving to meet agency initiatives and to efficiently and effectively serve the needs of our staff and constituents.

Goal 5: "Greener" IT

Information Technology (IT) will leverage software solutions and hardware platform selection as well as better defining internal processes to vigilantly reduce the agency's ecological footprint. By utilizing server and application virtualization, IT can remain highly responsive and innovative while maximizing the usage of current infrastructure components, realize cost savings from the reduction and centralization of infrastructure resources and support agreements, increase redundancy and reduce disaster recovery response timelines.

Goal 6: Incorporate Cloud Services

As internal systems age or initiative scopes increase, cloud services will be compared with the traditional costs of increasing infrastructure to meet those demands. Using stringent cost versus benefit guidelines, IT will evaluate and review security, privacy and data storage requirements of both new and existing initiatives so that cloud platforms and services can be incorporated where it improves operational efficiency and decreases the required maintenance footprint of the department.

Part II: Technology Initiative Alignment

The following table summarizes CPRIT Information Resources objectives and strategies as they relate to departmental goals. Additionally, each objective and/or strategy is correlated to related Statewide Technology Priorities (STPs), if possible.

Objectives	Strategies	STPs	Status	Goal 1: Anywhere/Anytime Access	Goal 2: Collaboration and Innovation	Goal 3: Privacy and Security	Goal 4: Quality of Service and Continuous Improvement	Goal 5: "Greener" IT	Goal 6: Incorporate Cloud Services
1. Incorporate effective IT governance mechanisms that align technology priorities and policies with established agency goals and objectives	1.1: Develop an annual work plan detailing the prioritization of information technology efforts		Planned		✓		✓		
	1.2: Clearly define key progress indicators and expected results for IT projects		Planned		✓		✓		
2. Clarify IT life-cycle policy and ensure that it continues to provide reliable, efficient and cost effective enterprise infrastructure services	2.1: Maintain existing enterprise infrastructure and services	P4	Current	✓		✓	✓	✓	
	2.2: Continue agency current policy of responsible procurement	P1, P4	Current		✓	✓	✓	✓	✓
	2.3: Implement a IT asset management and ticketing system	P4	Current		✓		✓		

The following table summarizes CPRIT Information Resources objectives and strategies as they relate to departmental goals. Additionally, each objective and/or strategy is correlated to related Statewide Technology Priorities (STPs), if possible.

Objectives	Strategies	STPs	Status	Goal 1: Anywhere/Anytime Access	Goal 2: Collaboration and Innovation	Goal 3: Privacy and Security	Goal 4: Quality of Service and Continuous Improvement	Goal 5: "Greener" IT	Goal 6: Incorporate Cloud Services
				Goals					
3. Facilitate implementation of business continuity and disaster recovery planning and scheduled testing	3.1: Deploy agency-wide system, application level and service monitoring	P4	Planned		✓		✓		
	3.2: Create a virtualized, fully redundant hardware and software infrastructure on-site	P4	Current	✓	✓		✓	✓	
	3.3: Clarify and update agency disaster recovery and emergency response plans	P1, P4	Planned	✓	✓	✓	✓		✓
4. Develop a methodology to review, revise, and implement agency record, service and system security policies to ensure the privacy and integrity of information resources	4.1: Complete an annual analysis of information resources procedures and security policies	P9	Planned		✓	✓	✓		
	4.2: Development an Incident Response Plan	P9	Planned		✓	✓	✓		

The following table summarizes CPRIT Information Resources objectives and strategies as they relate to departmental goals. Additionally, each objective and/or strategy is correlated to related Statewide Technology Priorities (STPs), if possible.

Objectives	Strategies	STPs	Status	Goal 1: Anywhere/Anytime Access	Goal 2: Collaboration and Innovation	Goal 3: Privacy and Security	Goal 4: Quality of Service and Continuous Improvement	Goal 5: "Greener" IT	Goal 6: Incorporate Cloud Services
				Goals					
	4.3: Regularly educate and inform agency staff on security policies, best practices, and incident reporting	P9	Planned		✓	✓	✓		
	4.4: Define and require a consistent encryption policy to protect sensitive agency information	P9	Current			✓	✓		
	4.5: Engage DIR to perform an annual system/network vulnerability test	P9	Planned			✓	✓		
5. Support and enhance agency collaborative efforts	5.1: Implement an agency-wide, resource planning and project tracking system	P1	Planned		✓		✓		✓
	5.2: Deploy an enterprise collaboration suite and integrated storage system	P1	Planned		✓		✓		✓

The following table summarizes CPRIT Information Resources objectives and strategies as they relate to departmental goals. Additionally, each objective and/or strategy is correlated to related Statewide Technology Priorities (STPs), if possible.

Objectives	Strategies	STPs	Status	Goal 1: Anywhere/Anytime Access	Goal 2: Collaboration and Innovation	Goal 3: Privacy and Security	Goal 4: Quality of Service and Continuous Improvement	Goal 5: "Greener" IT	Goal 6: Incorporate Cloud Services
				Goals					
	5.3: Maintain and expand agency adoption of audio/video technologies	P1, P4	Current		✓		✓	✓	✓
6. Provide access to agency information and services anywhere/anytime	6.1: Provide secure, web-based access to information, storage resources and critical services for agency staff and stakeholders	P1, P6	Current	✓	✓		✓	✓	✓
7. Redefine and enhance the agency's world wide web presence	7.1: Make existing agency public web resources easier to discover, navigate, and understand		Current	✓	✓		✓		
	7.2: Implement a web content management system		Current	✓	✓		✓		

The following table summarizes CPRIT Information Resources objectives and strategies as they relate to departmental goals. Additionally, each objective and/or strategy is correlated to related Statewide Technology Priorities (STPs), if possible.

Objectives	Strategies	STPs	Status	Goal 1: Anywhere/Anytime Access	Goal 2: Collaboration and Innovation	Goal 3: Privacy and Security	Goal 4: Quality of Service and Continuous Improvement	Goal 5: "Greener" IT	Goal 6: Incorporate Cloud Services
				Goals					
8. Maintain and expand an environmentally responsible IT operational focus	8.1: Conduct an annual energy audit of agency servers and desktop system to determine and track footprint changes	P4	Planned				✓	✓	
	8.2: Implement centralized storage and virtualization systems	P1, P4	Current				✓	✓	✓
9. Limit infrastructure procurement, deployment and maintenance costs while increasing efficiency by utilizing cloud services	9.1 Perform annual review of internal services and systems to determine if they are candidates for cloud hosted platforms or products	P1, P4	Planned						✓
	9.2 Adopt cloud services for web-based public facing applications	P1	Planned						✓

Technology Initiative Alignment Details

Objective 1: Incorporate effective IT governance mechanisms that align technology priorities and policies with established Institute goals and objectives, and overall mission. Senior management and IT will work together to create an annual work plan defining agency-wide technology initiatives and establishing the prioritization of those efforts. IT will assist executive management in developing a policy framework that addresses stakeholder expectations, transparently defines infrastructure capabilities, and communicates risks in plain language inherent in new agency technology initiatives and requests. Working with agency senior management to establish a standard set of metrics and benchmarking measures for IT projects.

Objective 2: Clarify IT life-cycle policy and ensure that it continues to provide reliable, efficient and cost effective enterprise infrastructure services, maintenance services, and reviewing and updating maintenance contracts to ensure that core systems, equipment, and software platforms are fully covered and serviceable.

Objective 3: Facilitate implementation of business continuity and disaster recovery planning and scheduled testing to ensure that redundant systems exist to sufficiently protect the integrity and security of agency data and maintain business continuity and accessibility to critical agency technical resources. This includes proactive monitoring of network, server and application level infrastructures; utilizing server virtualization technologies, redundant network infrastructure hardware along with centralized storage to ensure that physical and application-level redundancy exist on-site; and updating agency service/system criticality and service restoration guidelines and engaging with the Department of Information Resources, other state entities as well as commercial solution providers to determine what cloud-based or offsite resources exist for co-location or relocation of agency resources in the event of a facility, natural or man-made, disaster.

Objective 4: Develop a methodology to review, revise and implement agency record, service and system security policies to ensure the privacy and integrity of information resources. This includes reviewing agency security policies annually will assist in streamlining processes, in maintaining an effective service plan to address weaknesses and will ensure that major changes in technological trends are evaluated and prepared for; defining and developing an Incident Response Plan that will encompass the agency's process of identification of, response to, and notification of compromised or infected systems, determination of privacy impact, and target/victim notification; enhancing general security awareness among staff; defining and implementing an encryption policy for all agency data storage systems, mobile computing devices, email, electronic data transfers; and engaging the Department of Information Resources to perform an independent annual system, application, and external network vulnerability test.

Objective 5: Support and enhance agency collaborative efforts which includes implementing an agency-wide resource planning and project tracking system and enhancing teleconference bridges as well as both desktop and conference room videoconferencing systems and web-based meeting software to enhance collaboration between remote entities and CPRIT offices.

Objective 6: Provide access to agency information and services which includes a web-based, secure virtual private network for staff usage ensuring access to email, shared file storage locations and hosted productivity applications, providing access to collaborative resources and critical information from any location.

Objective 7: Redefine and enhance the agency's World Wide Web sites which provide accurate, up-to-date, and responsive information and a platform to assist the public in understanding the direct impact and relevance of CPRIT funded projects in their local neighborhoods, cities, counties and in the entire state of Texas.

Objective 8: Maintain and expand an environmentally responsible IT operational focus which includes purchasing infrastructure hardware designed for low energy consumption, limiting endpoint power usage by standardizing on small form factor PCs, and maintaining a limited infrastructure footprint by consolidating agency physical storage devices and server systems through the use of virtualization.

Objective 9: Limit infrastructure procurement, deployment and maintenance costs while increasing efficiency by utilizing cloud services. Instead of only performing traditional analysis when assessing business or customer requirements, IT will also research cloud platforms and products that could be leveraged instead. By employing mature services, response times should increase while support and maintenance costs decrease. Decoupling the agency, provided applications and services from physical hardware maintained by IT, providing a more agile disaster recovery response, increasing general availability of hosted services via the Internet and significantly reducing departmental investment in maintaining legacy systems while simultaneously limiting future hardware and software licensing purchases.

Appendices

Appendix A: Description of Agency's Planning Process

The following describes the key dates and activities undertaken by the Institute in its strategic planning process:

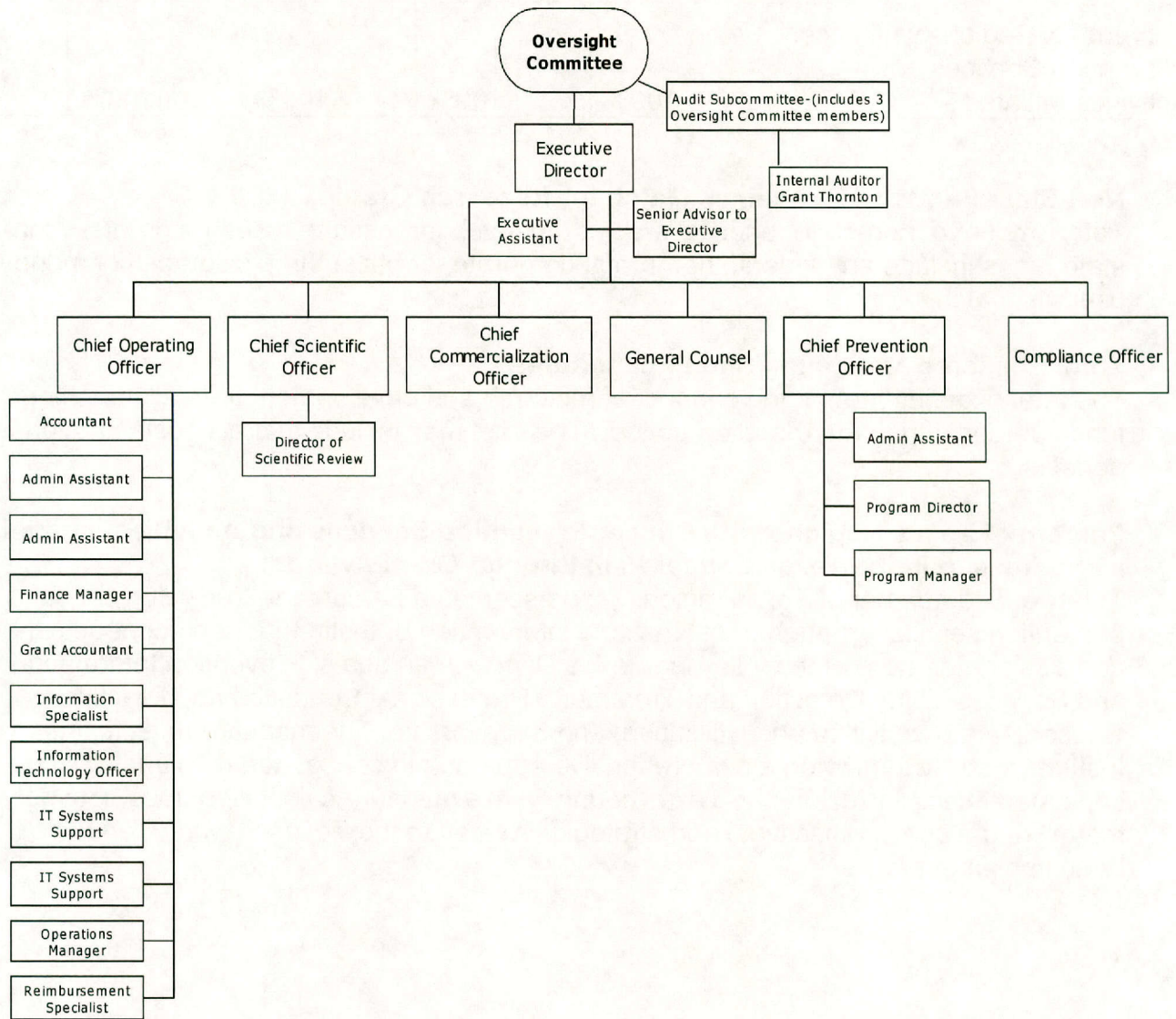
- **June 2011**
Began a series of facilitated meetings with Staff and Board Members to discuss strategic planning process, mission statement and future goals.

Priority areas for future program development were determined by the legislation creating the Institute and current ongoing prevention and education programs being funded.
- **March 2012**
Institute strategic plan and information resources strategic plan instructions were received from the Governor's Office of Budget and Planning and the Legislative Budget Board. Staff will develop content and format of the FY 2013 – 2017 Strategic Plan (External/Internal Assessments, Mission, Goal, Objective, Strategies, Outcome, and Outputs).

Meeting with facilitator to discuss priority areas and plans for implementation.
- **June 2012**
Strategic plan contents reviewed, approved, and authorized for submission by Institute Oversight Committee.
- **June 2012**
FY 2011 – 2015 Strategic Plan submitted.

Appendix B: Current Organizational Chart

As of June 2012



Appendix C: Five Year Projections for Outcomes 2011-2015

OUTCOME	2013	2014	2015	2016	2017
Non-State Funds Leveraged as Match for Research Grants (in millions)	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000
Total Research Matching Fund Expenditures	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000
Percent TX Regions w/ Cancer Prevention Services and Activities Initiated	100%	100%	100%	100%	100%

Non-State Funds Leveraged as Match for Research Grants:

Total amount of non-state funds leveraged as match for Institute research grants. Non-state funds include any federal, non-profit, corporate, or philanthropic sources of money used as match.

Total Research Matching Fund Expenditures:

The total expenditures for the conduct of research and development from all matching fund sources during the reporting period. The total may include indirect costs and fringe benefits.

Percent of Texas Regions with Cancer Prevention Services and Activities Initiated as addressed in the *Texas Cancer Plan* through Grant Awards:

Total verified number of Texas regions (expressed as a percentage) receiving cancer prevention services through direct Institute intervention or Institute-funded contracts that address one or more of the following *Texas Cancer Plan* goals: Prevention Information and Services; Early Detection and Treatment; Professional Education and Practice; Cancer Data Acquisition and Utilization; and Survivorship. The measure reflects the Institute's ability to provide a comprehensive approach to cancer control planning and implementation. Inclusion of a Texas county in this measure calculation does not imply that all of the goals, objectives, and strategies related to the *Texas Cancer Plan* have been implemented.

Appendix D: Performance Measures Definitions

GOAL 1 – Cancer Research and Prevention Services

Objective A.1: Invest in Texas-Based Cancer Research Projects

Outcome Measure A.1.	Non-State Funds Leveraged as Match for Research Grants (in millions)
Short Definition:	Total amount of non-state funds leveraged as match for Institute research grants. Non-state funds include any federal, non-profit, corporate, or philanthropic sources of money used as match.
Purpose/Importance:	This measure indicates the amount of non-state appropriated dollars invested in cancer research in Texas.
Source/Collection of Data:	Data for all leverage funds announced is documented in the Institute agreements signed by grant recipients.
Method of Calculation:	Institute staff will total the amount of leverage investments identified in signed protect agreements for projects receiving Institute awards.
Data Limitations:	None
Calculations Type:	Cumulative
New Measure:	Yes
Desired Performance:	Higher than target

Outcome Measure A.2.	Total Research Matching Fund Expenditures
Short Definition:	The total expenditures for the conduct of research and development from all matching fund sources during the reporting period, including indirect costs. This would exclude amounts granted by the Cancer Prevention and Research Institute and would also exclude the Institute's fringe benefits.
Purpose/Importance:	This measure is an indicator of the level of matching research dollars expended for cancer research grant awards.
Source/Collection of Data:	Annual financial reports from grant recipients documenting actual expenditures of all funds related to the Institute's grant award.
Method of Calculation:	The total dollar amount of matching fund expenditures for the conduct of research and development from all funding sources documented in the Institute's award agreements signed by the grant recipients.
Data Limitations:	None
Calculations Type:	Cumulative
New Measure:	Yes
Desired Performance:	Higher than target

Outcome Measure A.3.	Percent TX Regions w/ Cancer Prevention Services and Activities Initiated
Short Definition:	Total verified number of Texas regions, as described by the Texas Health and Human Services Commission, expressed as a percentage, receiving cancer prevention services through direct Institute intervention or Institute-funded contracts that address one or more of the Texas Cancer Plan goals.
Purpose/Importance:	The Texas Cancer Plan goals are: Prevention Information and Services; Early Detection and Treatment; Professional Education and Practice; Cancer Data Acquisition and Utilization; and Survivorship. The measure reflects the Institute's ability to wage a multi-faceted attack on cancer.
Source/Collection of Data:	Each initiative is required to apply for Institute funding annually. The applicant must report which Texas Cancer Plan goals are being addressed by their activities and must also indicate the geographic area(s) their program will serve. Each applicant must address at least one Cancer Plan goal and may address multiple goals.
Method of Calculation:	Institute staff verifies the goals being addressed and creates a matrix documenting all initiatives and goals addressed. Geographic areas served will also be tracked. Agency records, and/or a current list of initiatives that are promoted by direct Institute intervention or funded initiatives will substantiate the percentage of Texas regions with services and activities addressed in the Texas Cancer Plan.
Data Limitations:	Inclusion of a Texas region in this calculation does not imply that all of the goals, objectives, and strategies related to the Texas Cancer Plan have been implemented.
Calculations Type:	Non-cumulative
New Measure:	Yes
Desired Performance:	Higher than target
Output Measure A.1.1.2.	Measure: Number of People Served by Institute Funded Prevention and Control Activities
Short Definition:	Total verified number of people in Texas receiving cancer related information or services provided by the Institute or Institute funded initiatives. This measure excludes professionals who are counted under a separate measure. Duplicate counts may occur if people make multiple contacts with Institute initiatives.
Purpose/Importance:	This measure is an indication of the prevention program's reach to Texans with effective science-based programs and/or services.

Source/Collection of Data:	The number of persons in Texas receiving cancer related information and services is reported in grantees' quarterly reports.
Method of Calculation:	Institute staff verifies the number of people served and creates a cumulative total that is substantiated by records retained at contractors' sites.
Data Limitations:	The majority of data reported by the Institute involves work done by grantees and their subcontractors. This can create a lag time in reported data resulting in a need for updating previously reported numbers. Large variances in performance from quarter to quarter and year to year are likely to occur due to the wide variety of programs and services funded by the Institute.
Calculations Type:	Output
New Measure:	Yes
Desired Performance:	Higher than the target
Output Measure A.1.1.2.	Number of Health Care Professionals Educated
Short Definition:	Total verified number of health care and other professionals in Texas educated on cancer related issues CPRIT funded initiatives. Duplicate counts may occur if professionals make multiple contacts with programs and services funded by the Institute.
Purpose/Importance:	Educating health professionals about cancer prevention and control issues has significant impact on the patients they treat.

Source/Collection of Data:	Educating health professionals about cancer prevention and control issues has significant impact on the patients they treat.
Method of Calculation:	Institute staff verifies the number of professionals educated on cancer related issues and creates a cumulative total that is substantiated by records retained at contractor's sites.
Data Limitations:	The majority of data reported by the Institute involves work done by grantees and their subcontractors. This can create a lag time in reported data resulting in a need for updating previously reported numbers. Variances in performance from quarter to quarter and year to year are likely to occur due to the variety of work done by Institute funded initiatives. End of year reporting does reflect complete and accurate reporting.
Calculations Type:	Output
New Measure:	Yes
Desired Performance:	Higher than the target
Output Measure A.1.1.1.	Number of Researchers Recruited to TX to Conduct Cancer Research
Short Definition:	The total number of Scientific researchers who relocate to Texas for a faculty position at a Texas based academic institution.
Purpose/Importance:	This measure indicates the number of scientific researchers in the area of cancer research attracted to Texas because of the availability of CPRIT research grant funds.
Source/Collection of Data:	CPRIT records of the number of academic institutions awarded a grant ratified by the Oversight Committee based on a grant application to recruit a scientific researcher to their institution.
Method of Calculation:	The total number of researchers recruited to Texas during the fiscal year documented by the ratified award slates and Oversight Committee meeting minutes which record these award decisions.
Data Limitations:	None. All data is the result of the number of research recruitment grants awarded to academic institutions.
Calculations Type:	Output
New Measure:	Yes <u>No</u>
Desired Performance:	Higher than the target

Output Measure A.1.1.1.	Number of Research Grant Awards
Short Definition:	Number of research grants made by the Institute.
Purpose/Importance:	This measure indicates the workload of the Institute in awarding grants and managing those grants through their award cycles.
Source/Collection of Data:	Signed research grant awards with the Institute.
Method of Calculation:	The total number of research grant awards issued to grant recipients through signed agreements.
Data Limitations:	None.
Calculations Type:	Explanatory
New Measure:	<u>Yes</u> <u>No</u>
Desired Performance:	Higher than the target
Output Measure A.1.1.1.	Number of Entities Relocating to TX for Cancer-Research Related Projects
Short Definition:	The total number of business or research entities which establish new business or research operations in Texas in order to participate in an Institute-funded grant award.
Purpose/Importance:	This measure indicates the level of attraction of cancer research funding to draw new businesses and research entities to Texas.
Source/Collection of Data:	Annual status or other reports from a grant recipient documenting the relocation of a business or research entity due to the research project funded by the Institute.
Method of Calculation:	The total number of business or research entities relocating to Texas documented in status reports from grant award recipients.
Data Limitations:	None.
Calculations Type:	Explanatory
New Measure:	<u>Yes</u> <u>No</u>
Desired Performance:	Higher than the target
Efficiency Measure A.1.1.2	Average Cost per Health Care and/or Education Professional Trained
Short Definition:	Total Institute funds expended for the development and implementation of training programs on cancer control for health care and/or education professionals, divided by the number of professionals being trained. Calculation represents a broad variety of training formats and professional disciplines. Duplicate counts of professionals trained may occur if professionals are trained in multiple ways and over multiple days.

Purpose/Importance:	The Institute recognizes the importance of efficiently expending state funds. One measure of that efficiency is low projected average cost of training professionals. To achieve such efficiency either the cost of training is less than projected or more professionals are being trained for the same amount of funding.
Source/Collection of Data:	The average cost of professionals trained is reported in initiative's quarterly reports.
Method of Calculation:	Institute staff verifies the average cost of training professionals for each initiative and creates a cumulative average by dividing the total cost of training for all initiatives by the total number of professionals trained by all initiatives. An initiative includes, but is not limited to, conducting training sessions, developing and distributing training materials, and developing web based training tools. Data is substantiated by Institute records and on-site review of contractor records of audited expenditures and rosters of health care and/or education professionals receiving training.
Data Limitations:	The majority of data reported by the Institute involves work done by grantees and their subcontractors. This can create a lag time in reported data resulting in a need for updating previously reported numbers. Variances in performance from quarter to quarter and year to year are likely to occur due to the variety of work done by Institute funded initiatives. End of year reporting does reflect complete and accurate reporting.
Calculations Type:	Efficiency
New Measure:	No
Desired Performance:	Lower than the target

Explanatory Measure A.1.1.1.	Number of Published Articles on CPRIT-Funded Research Projects
Short Definition:	Number of scientific publications that include articles that result from CPRIT funded research projects.
Purpose/Importance:	This measure indicates the level of success recognized by external research and medical institutions of CPRIT funded projects in the quest to develop breakthroughs in cancer research and prevention services.
Source/Collection of Data:	The number of publications is reported in awardees annual reports.
Method of Calculation:	Institute staff will verify and total the number of publications reported by awardees in their report submissions. Publications are interpreted as articles that include references to actual scientific outcomes from awarded projects.

Data Limitations:	The majority of data reported by the Institute involves work done by grantees and their subcontractors. This can create a lag time in reported data resulting in a need for updating previously reported numbers. Variances in performance from quarter to quarter and year to year are likely to occur due to the variety of work done by Institute funded initiatives.
Calculations Type:	Explanatory
New Measure:	Yes <u>No</u>
Desired Performance:	Higher than the target

Explanatory Measure A.1.1.1.	Number of New Jobs Created and Maintained
Short Definition:	An unduplicated count of the number of jobs that were created and maintained (one year) using funds provided by the Institute.
Purpose/Importance:	This measure indicates the impact of Institute funding to preserve and create new jobs; to build human resources stability in the Cancer arena.
Source/Collection of Data:	The number of jobs created and maintained is annually reported in awardees reports.
Method of Calculation:	Institute staff will verify and total the number of jobs created and maintained that are reported by awardees in their report submissions.
Data Limitations:	The majority of data reported by the Institute involves work done by grantees and their subcontractors. This can create a lag time in reported data resulting in a need for updating previously reported numbers. Variances in performance from quarter to quarter and year to year are likely to occur due to the variety of work done by Institute funded initiatives.
Calculations Type:	Explanatory
New Measure:	Yes <u>No</u>
Desired Performance:	Higher than the target

Explanatory Measure A.1.1.1.	Average Dollar Amount of Research Grants Awarded
Short Definition:	The average dollar amount of research grant awards made by the Institute.
Purpose/Importance:	This measure indicates the average size of grant awards issued by the Institute.
Source/Collection of Data:	Signed research grant awards with the Institute.
Method of Calculation:	The total dollar amount of research grants divided by the total number of research grants made as documented in signed agreements with the Institute.
Data Limitations:	None.
Calculations Type:	Explanatory
New Measure:	Yes No
Desired Performance:	Higher than the target

Explanatory Measure A.1.1.2.	Annual Age-adjusted Cancer Mortality Rate
Short Definition:	Statewide annual age-adjusted cancer mortality rate, as determined by the Cancer Registry Division, Texas Department of State Health Services.
Purpose/Importance:	All of the Institute's activities positively contribute to reducing cancer mortality, as do Texas physicians, hospitals, cancer treatment centers, volunteer organizations and other health care facilities. The Institute recognizes that cancer mortality rate is the ultimate outcome measure for cancer control.
Source/Collection of Data:	The Cancer Registry Division of the Texas Department of State Health Services provides the data reported for this measure.
Method of Calculation:	The calculation age-adjusts cancer death rates to the U.S. 2000 Standard Population, as used by the National Cancer Institute.
Data Limitations:	Age-adjusted mortality rates are relative rates used nationally for comparison purposes. Age-adjusted rates fluctuate when population forecasts change and as the population ages. Cancer rates will be adjusted to the 2000 United States standard. Comparisons with previous mortality rates will require recalculations to the new standards. There is an 8-12 month delay in obtaining cancer mortality data from the Texas Department of State Health Services. A long-term, expensive study would be needed to correlate the impact of the Institute projects with the state mortality rate. Further, the impact of cancer prevention efforts on mortality rates cannot be measured in legislative budget cycles.
Calculations Type:	Explanatory
New Measure:	No
Desired Performance:	Lower than the target

Appendix E: Workforce Plan

Overview of Statute, Mission, and Essential Functions

Texas voters overwhelmingly approved a constitutional amendment in 2007 establishing the Cancer Prevention and Research Institute of Texas (CPRIT) and authorizing the state to issue \$3 billion in general obligation bonds over ten years to fund groundbreaking cancer research and prevention programs and services throughout the state. House Bill 14, 80th Texas Legislature, is the authorizing statute that charges CPRIT to:

- Create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer;
- Attract, create, or expand research capabilities of public or private institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state; and
- Develop and implement the *Texas Cancer Plan*.

Under the guidance of the Oversight Committee, CPRIT's governing board, CPRIT accepts applications and awards grants for a wide variety of cancer-related research and for the delivery of cancer prevention programs and services by public and private entities located in Texas. All CPRIT-funded research will be conducted in state by Texas-based scientists and reflect CPRIT's mission to attract and expand the state's research capabilities and create high quality new jobs in Texas.

Since the first appropriation of \$225 million of cancer bond funds became available on September 1, 2009, CPRIT has awarded funds for individual investigator research projects; high-risk innovation research projects; evidence-based prevention programs and services; health promotion and public education prevention programs; company-based research; and professional education programs. CPRIT is awarding funds to academic institutions to recruit outstanding researchers to Texas as *CPRIT Scholars in Cancer Research* and to train exceptional predoctoral and postdoctoral candidates who are committed to pursuing a career in basic, translational, and clinical cancer research to cultivate the next generation of investigators and leaders in the cancer research field in Texas. CPRIT is also focusing a significant amount of funding on community collaborative prevention programs for breast, cervical, and colorectal cancers and on multi-institutional collaborations to enhance the capabilities and infrastructure in Texas to improve the research resources for the future growth of the state's biotechnology industry.

All of the proposals are reviewed by scientists or other experts who live and work outside the State of Texas to ensure the greatest objectivity in the review process. Their advice is used by the Executive Director to develop the cancer research and prevention award slates which are ratified by the Oversight Committee.

CPRIT has 24 budgeted FTEs headed by an Executive Director who oversees five functional areas—Research, Prevention, Commercialization, Operations, and Legal. These functional divisions are necessary to accomplish the essential business functions and duties of the agency.

Agency Workforce

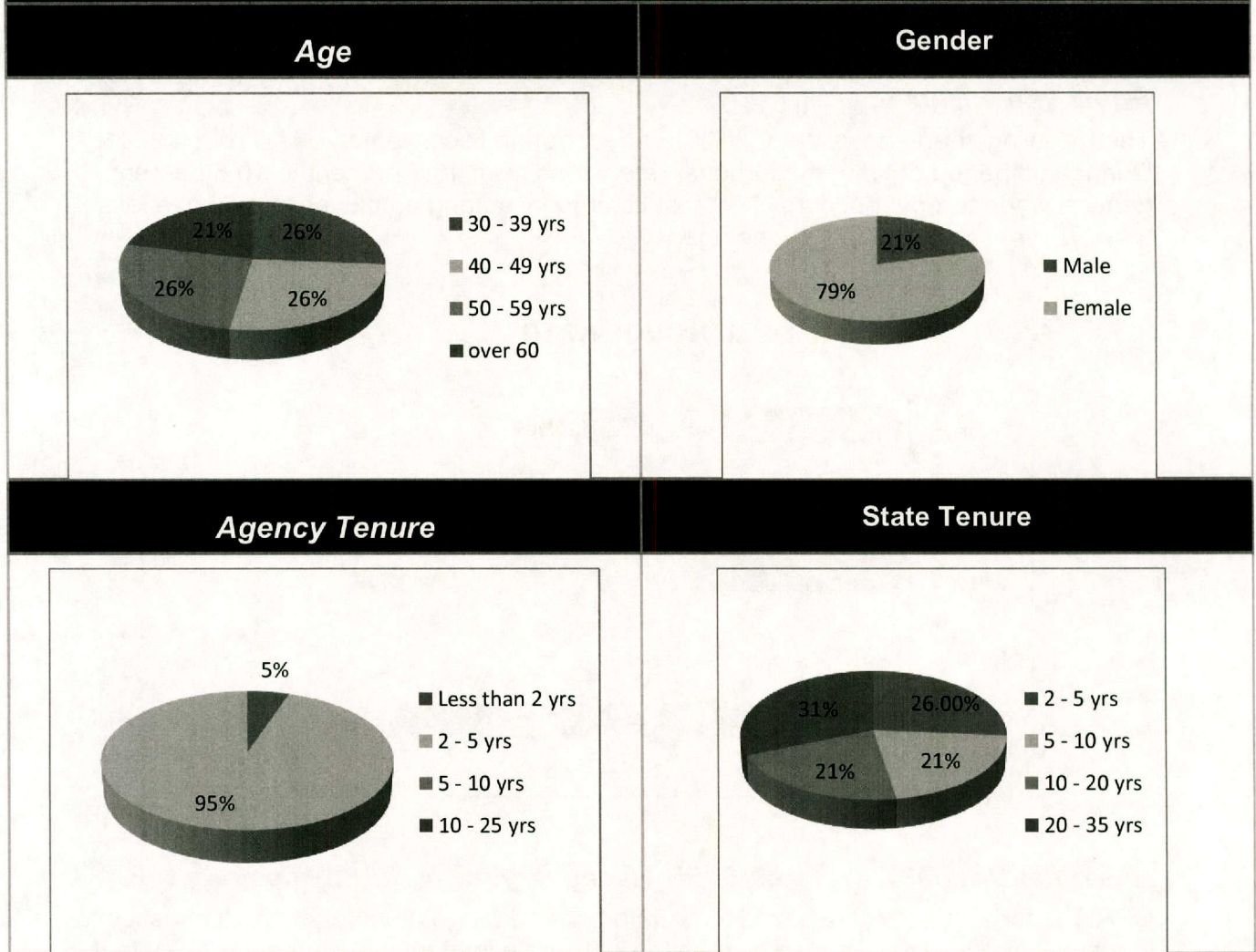
CPRIT is currently staffed by 19 employees, five of which are contract employees. 21 employees are centrally located in Austin, two are in the Dallas satellite office and one is in the Houston satellite office.

Workforce Demographics

The following chart profiles CPRIT's total workforce as of May 2012. Seventy-three percent of CPRIT's employees are over the age of 40. CPRIT's workforce is comprised of 79 percent females and 21 percent males.

Five percent of employees have less than 2 years of service with the agency. 52 percent of the staff have over 10 years of state service. The majority of employees have the potential for continued service with the agency.

Workforce Breakdown



The following table compares the percentage of African American, Hispanic and Female CPRIT employees as of January 2012 to the statewide civilian workforce as reported by the Texas Commission on Human Rights.

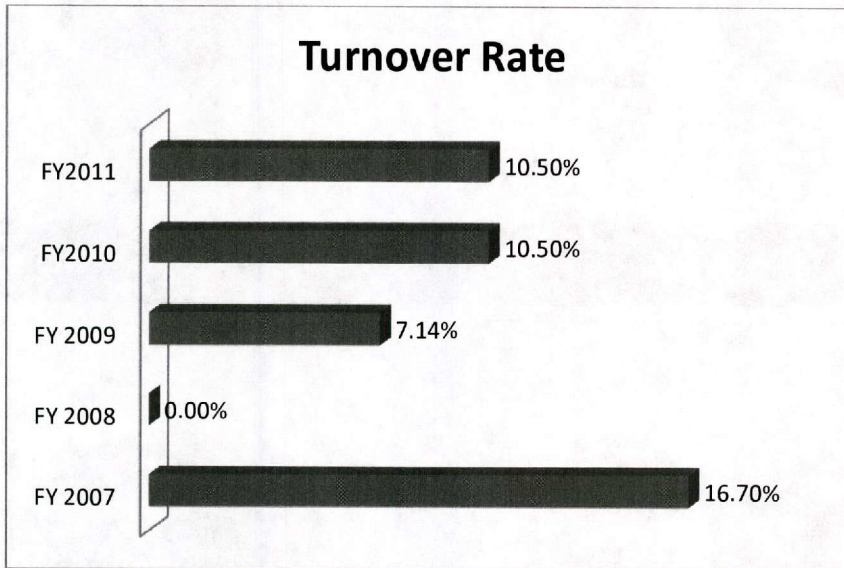
Job Category	African American		Hispanic American		Females	
	CPRIT %	State %	CPRIT %	State %	CPRIT %	State %
Officials, Administration	4.3.00%	6.00%	21.7%	9.00%	52.17%	29.00%
Professional	8.69.00%	8.00%	0.00%	9.00%	21.7%	47.00%

Retirement Eligibility

CPRIT projects that 3 employees will be eligible to retire within the next four years. This represents 15.78 percent of the total workforce.

Employee Turnover

The following chart shows the CPRIT turnover during fiscal years 2007 through 2011. During this period of time, the turnover rate varied from 16.7 percent to 10.5 percent. In general when turnover occurs, it is most commonly among employees who have less than two years of service with the agency.



Essential Critical Workforce Skills Necessary for Institute Mission

CPRIT is fortunate to have a workforce with a broad range of experience. It is essential in a small agency to have staff diverse in skills and experience because it is likely that an employee will perform more than one job function. The agency has highly qualified, dependable employees with skills that allow CPRIT to operate efficiently and effectively. To maintain quality services for Texas and carry out essential functions, the agency will continue to make every effort to hire and retain employees with experience and skills in leadership, management, administration, information technology, financial administration and grant monitoring.

Future Workforce Profile (Demand and Gap Analysis)

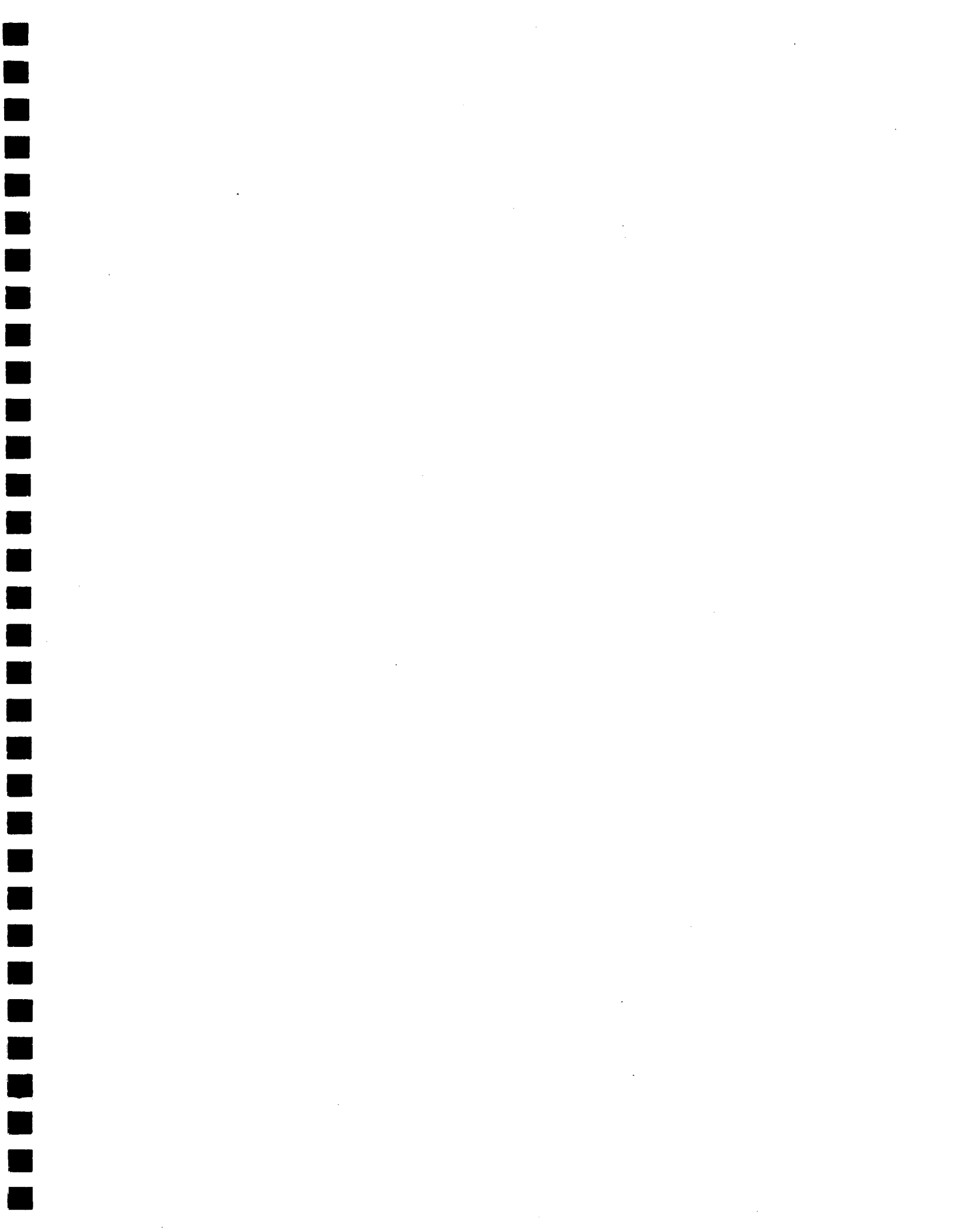
A continuing analysis of CPRIT demands will be reviewed to ensure that there is an adequate and effective agency workforce in place. It is estimated that the CPRIT workforce will remain at 24 FTEs.

Strategy Development

CPRIT has determined that there are no anticipated gaps or surpluses in workforce numbers or skills for the next five years. CPRIT will continue to follow the established recruitment plan and will keep agency policies and procedures documented to ensure knowledge is retained. CPRIT is prepared to recruit and hire the staff necessary to continue to support the agency mission.

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