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# CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

## **Prevention Outreach**

Updates and milestones regarding CPRIT Prevention programs

*For Fiscal Year 2022*

1. Researchers from The University of Texas MD Anderson Cancer Center reported that breast cancer survivors who participated in “Active Living After Cancer,” an evidence-based 12-week group program, markedly increased their physical activity and ability to accomplish the basic pursuits of daily life. “After a cancer diagnosis, survivors’ physical functioning declines much faster than their peers of the same age and gender who don’t have cancer, which can ultimately affect their ability to remain independent and mobile,” said Karen Basen-Engquist, Ph.D., professor of behavioral science and senior author of the paper. The findings, published in the journal *Cancer* on September 23, 2021, were based on 127 breast cancer survivors who completed the program between 2014 and 2017. During this time, 34 Active Living After Cancer groups (12-week sessions with the same cohort) were completed at health care organizations, community organizations and churches across the greater Houston area. The program is unsupervised and free and was offered to breast cancer survivors who had completed primary cancer treatment. Facilitators from community organizations follow a 12-week curriculum that introduces a different low-impact exercise, cognitive/behavioral skill and survivorship resource each week to help participants increase their physical activity at home, learn how to build healthier habits and cope with the challenges of survivorship. Self-reported physical activity nearly doubled at the 12-week follow-up and participants reported an 8% increase in physical quality of life and a 6% improvement in mental health. The results show the program could serve as a model to deliver a community-based physical activity program to minority and medically underserved cancer survivors. The University of Texas MD Anderson Cancer Center received a \$630,000 CPRIT Evidence-Based Prevention Programs and Services grant (PP130079) in November 2013.

2. In November 2021, Yue Liao, Ph.D., assistant professor of kinesiology at The University of Texas at Arlington, announced a pilot project titled “Project REMOTE: Research to Examine Motivation to Exercise.” It incorporates the use of wearable sensors to monitor participants’ daily activities and uses a smartphone app to survey feelings, symptoms, perceptions and motivations, along with contextual factors related to their physical activity behaviors. This strategy provides high-resolution data about determinants of motivation and barriers to exercise in daily life. The results, published in September 2021 in *Cancer*, reported that cancer survivors improved their quality of life, physical activity level and physical functioning after completing a 12-week group-based exercise program. The team focused its research on minority and medically underserved cancer survivors who often lack access to physical activity resources. Dr. Liao is continuing the research by investigating how survivors can maintain the positive benefits achieved through these evidence-based programs. The University of Texas MD Anderson Cancer Center received a \$2 million CPRIT Prevention grant (PP200028) in November of 2020.

3. Data from an article published in *Medicine & Science in Sports & Exercise* in November 2021, showed strong evidence that moderate-intensity aerobic training alleviated anxiety, depressive symptoms and fatigue and improved health-related quality of life and overall physical function. Karen Basen-Engquist, Ph.D., MPH, professor of behavioral science and director of the Center for Energy Balance in Cancer Prevention and Survivorship at The University of Texas MD Anderson Cancer Center, led the team that developed the 12-week “Active Living After Cancer” program. The development of the program followed data from Cooper Institute’s Project ACTIVE, which showed that a focus on activities that individuals can incorporate into daily life without having to go to a gym or requiring specific time goals, improved physical activity and cardiorespiratory health in the general population. Dr. Basen-Engquist and colleagues simplified the text, translated the program into Spanish, and developed a training program for community health educators. The researchers had originally fo-

cused their sights on underserved and minority populations, but the Active Living After Cancer program is now virtual, so it is available to anyone throughout the state. The University of Texas MD Anderson Cancer Center received a CPRIT Competitive Continuation/Expansion - Evidence-Based Cancer Prevention Services grant in 2017 (PP170023) and a CPRIT Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations Prevention award in 2020 (PP200028) for a total of \$3.5 million.

4. The Breast Screening and Patient Navigation (BSPAN) Program provides access to no-cost breast cancer screening services to uninsured women in North Texas. Using data from the longitudinal BSPAN program (2012–2019), researchers assessed prevalence and correlates of baseline adherence and longitudinal adherence to screening mammograms. The results, published in the American Association of Cancer Research on January 11, 2022, found that out of 19,292 women, only 5,382 (27.9%) were baseline adherent. Keith Argenbright, M.D., professor at the Harold C. Simmons Comprehensive Cancer Center, noted that the results revealed that adherence was more likely among women who were partnered, preferred speaking Spanish, had poor reading ability, had prior Papanicolaou (PAP) testing, and prior screening mammograms. More than 80% of these baseline adherent women achieved longitudinal adherence. These results may be generalizable to other areas introducing no-cost screening to low-income women, independent of any regular patient-centered medical home. The University of Texas Southwestern Medical Center received three CPRIT Evidence-Based Prevention Programs and Services grants (PP120097, PP150053, PP180018) in 2012, 2015, and 2018, respectively, for a total of \$5.55 million.

5. On January 31, 2022, Baylor College of Medicine announced that Lindy U. McGee, M.D., assistant professor, Department of Pediatrics-Academic General, is leading a campaign to prevent vaping among adolescents. In 2019, she and Jane R. Montealegre, Ph.D., assistant professor, Department of Pediatrics and Deputy Director of the Office of Outreach and Health Disparities at the Dan L Duncan Comprehensive Cancer Center, received a grant from CPRIT to engage and educate pediatric healthcare providers and improve tobacco and e-cigarette prevention clinical services in Harris County. Pediatricians and nurses are trained to ask their patients about vaping in addition to smoking. Questions are integrated into the electronic medical record for easy access and reporting. Since then, they have rolled out a healthcare provider education program that serves 13 clinics. As part of the grant-funded initiative, Drs. McGee and Montealegre also work with a student advisory group to run an Instagram page designed to show teenagers how they can prevent cancer. The group consists of students ranging from high-school age to current medical school students who work together on messaging for their peers. Baylor College of Medicine received a \$1.3 million CPRIT Prevention grant (PP190051) in August 2019.

6. South Texas Latinas experience higher cervical cancer incidence and mortality compared to Latinas nationwide. Principal Investigator Daisy Morales-Campos, Ph.D., assistant professor at The University of Texas at Austin, stated that despite the availability of effective human papillomavirus vaccines, South Texas Latino/a adolescents sub-optimally complete the series. The specific aims of this study were to explore healthcare providers' perceptions of the process of administering the HPV vaccine to patients in their practices within the geographical and cultural context of South Texas; and to identify facilitators and barriers to administering the HPV vaccine to Latino/a adolescents that may shape Latino parent's perceptions and decisions to vaccinate their child. Published in March 2022 in BMC Public Health, the study used qualitative description to describe

the experience of 15 South Texas healthcare providers (doctors and nurses) with the process of HPV vaccine administration in their practices. Barriers ranged from parental fears of adolescent sexual activity and potential vaccine side effects to lack of transportation and the cost of the vaccine. This research clearly supports the need for broader policy changes aimed at addressing the various organizational and structural challenges to implementing and sustaining effective HPV vaccine coverage. The University of Texas Health Science Center at San Antonio received a \$1.3 million CPRIT Evidence-Based Prevention Programs and Services grant (PP160042) in 2015, and The University of Texas at Austin received a \$1.3 million CPRIT Evidence-Based Prevention Programs and Services grant (PP160080) in 2016.

7. Baylor College of Medicine researchers and colleagues examined changes to smoking habits and correlates of increases and decreases during the COVID-19 pandemic among participants enrolled in a tobacco cessation and lung cancer screening program. Between June and October 2020, they conducted a cross-sectional survey of a program participant sample. Demographic variables included age, sex, race/ethnicity and marital status. Results, published in March 2022 in the *Ochsner Journal*, showed statistically significant and potentially clinically important differences between those who increased and decreased tobacco use during the pandemic. Among current smokers, 28.2% reported increased tobacco use, 17.3% reported decreased tobacco use and 54.5% reported no change. In addition, there were no reports of relapse among former smokers. Roger Zoorob, M.D., MPH, professor and Chair, Department of Family and Community Medicine at Baylor College of Medicine, found correlates of increased tobacco use related to coping strategies and mental health. In contrast, those who smoked less were more likely to practice social distancing and other preventive strategies of proven benefit. These data may aid healthcare providers to identify and provide counsel to cigarette smokers at greater risk for increasing tobacco consumption during current and future stresses such as the COVID-19 pandemic. Baylor College of Medicine received a \$1.5 million CPRIT Prevention grant (PP180016) in 2018.

8. On May 12, 2022, The University of Texas at Austin Dell Medical Center announced Michael Pignone, M.D., MPH, MACP, as the inaugural Dr. Lowell Henry Lebermann Endowed Chair in Internal Medicine. Dr. Pignone is the Assistant Dean for Veterans' Affairs, Director of the program on Cancer Prevention and Control at the Livestrong Cancer Institutes, professor in the Department of Internal Medicine and courtesy professor in the Departments of Oncology and Population Health. Dr. Pignone's research focuses on chronic disease screening, prevention and treatment, and on improving medical decision making. He developed and tested interventions, including decision aids, to mitigate literacy-related health disparities and to improve the use of appropriate preventive services and has published more than 275 peer-reviewed journal articles. The University of Texas at Austin and Dr. Pignone received five CPRIT Prevention grants (PP170082, PP190063, PP200036, PP200066, PP2100450) in, 2017, 2019, 2020 (2), and 2021, respectively, for a total of \$6.5 million.

9. Parents who decline HPV vaccination is a challenge for providers and leads to low adolescent HPV vaccination initiation. In 2018, 65% of adolescent girls and 56% of adolescent boys in Texas initiated HPV vaccination. Gaps between HPV vaccination rates and those for Tdap (83%) and meningococcal vaccines (87%) among 13–17-year-olds highlights missed opportunities to prevent HPV-related cancers. In 2015, Lara Savas, Ph.D., associate professor, Department of Health Promotion and Behavioral Sciences, The University of Texas Health Science Center, and colleagues surveyed pediatricians in a large Texas pediatric clinic network to assess physician knowledge, beliefs, attitudes and behaviors regarding adolescent HPV vaccination. The results

of this study were published in June 2022 in the *Journal of Applied Research on Children: Informing Policy for Children at Risk*. Among 226 physicians, 59.8% completed the emailed survey. Controlling for patient and physician demographics, odds of HPV vaccination initiation were significantly increased if physicians used a bundled approach to recommend the HPV vaccine: “Your child is due for three vaccines: Tdap, HPV, and meningococcal vaccine.” This study links physician HPV vaccine recommendation wording and outcomes, showing the significant effect of bundling HPV vaccination for adolescent patients. The University of Texas Health Science Center received a \$1.5 million CPRIT Individual Investigator Research Awards for Prevention and Early Detection grant (RP150014) in 2015 and a \$1.5 million CPRIT Evidence-Based Prevention Programs and Services grant (PP140183) in 2018.

10. Texas Southern University is now providing breast cancer screening, among other services, for African American and other ethnic minority women in Harris, Grimes, Matagorda, Walker, and Wharton counties. This program provides patient navigation/barrier reduction services, and evidence-based culturally appropriate breast cancer awareness and education services for a population that has traditionally been underserved and at higher risk for breast cancer. The Breast Cancer Screening and Prevention Center (BCSPC) will provide mammograms to 1,350 eligible African American and other ethnic minority women over a three-year period who meet criteria such as first-time or rarely screened, uninsured or underinsured, age 40 or above (or high risk if younger than 40). Mobile mammography is provided by The Rose and other partners and in-clinic mammograms are available at seven different Houston Methodist Cancer Centers. “Especially during the pandemic, it has been very challenging for women to access health care and screening services due to hesitation to seek care, decreased attention to self-care, and all the childcare responsibilities for women,” said Veronica Ajewole, PharmD, BCOP, associate professor of pharmacy practice, Texas Southern University BCSPC’s program director/principal investigator. The Texas Southern University received a \$1 million CPRIT Evidence-Based Prevention Programs and Services grant (PP210049) in August 2021.

11. Amelie Ramirez, Dr.P.H., M.P.H., professor, Director of the Institute for Health Promotion Research, Chair of the Department of Population Health Sciences at The University of Texas Health Science Center at San Antonio, and colleagues performed an exploratory study to assess the feasibility of direct outreach in bars, clubs, and restaurants to recruit smokers to Quitxt, the mobile smoking cessation service designed by the researchers. Quitxt is delivered through SMS text messaging or Facebook Messenger. The team collaborated with an advertising agency to conduct in-person recruitment of young adult smokers aged 18-29 years, focusing on urban and rural Spanish-speaking Latino participants, as well as English-speaking rural White and African American participants. The street teams made direct, face-to-face contact with smokers in and near smoking areas at 25 bars, clubs, and other venues frequented by young smokers in urban San Antonio and nearby rural areas. Nearly 4,000 tobacco users were approached and 335 (8.5%) formally registered as enrollees in the program. Among these individuals, approximately 1 in 5 were ready to make a quit attempt and approximately 1 in 7 achieved 1 week of nonsmoking. Since young adults are less likely to seek or use traditional cessation services, that direct outreach in bars and clubs is a useful method for connecting young adult cigarette smokers with mobile cessation services, particularly if the program is tailored to the participants’ culture, language, and media use, and the use of incentives could help obtain more useful response rates. The University of Texas Health Science Center at San Antonio received a \$1.3 million CPRIT Prevention grant (PP170099) in 2017.

12. Prevention programs, advanced clinical services and disparity-based research at Texas Tech University Health Sciences Center El Paso and Texas Tech Physicians of El Paso (TTP El Paso) play a pivotal role in transforming health care in the Borderplex. Two TTUHSC El Paso programs have saved countless lives in West Texas through cancer screening in uninsured or underinsured residents. Since 2011, over 32,500 patients from El Paso and West Texas have enrolled in the Southwest Coalition for Colorectal Cancer Screening (SuCCCeS) and the Breast Cancer Education, Screening and Navigation (BEST) programs. BEST helps residents from El Paso to Pecos County, while SuCCCeS reaches into the panhandle to Floyd County. Together, they cover 37 West Texas counties, many of which lack specialists. TTP El Paso opened an addiction clinic addressing mental health and substance use disorders in the region. The clinic is the only of its kind in the county, with a provider, Fabrizio Delgado, M.D., who is an addiction psychiatrist certified by the American Board of Psychiatry and Neurology. Adults have experienced an increase in mental health issues, further exasperated by the COVID-19 pandemic; a co-occurrence of mental health disorders is substance abuse, which 17 million Americans experienced in 2020. Texas Tech University Health Sciences Center El Paso received a \$2.5 million CPRIT Prevention grant (PP210005) in 2021.

13. The human papillomavirus (HPV) vaccine was approved in 2006 and has been shown to decrease vaccine-related HPV types in the oropharynx. Its impact on the incidence of HPV-related oropharyngeal squamous cell carcinoma (OPSCC) has not been examined. Abbey Berenson, M.D., Ph.D., professor, Departments of Obstetrics & Gynecology and Pediatrics, Director of the Center for Interdisciplinary Research in Women's Health, and fellow researchers from The University of Texas Medical Branch in Galveston investigated the impact of HPV vaccination on the incidence of HPV-related OPSCC in the U.S. among male and female adults from different age groups. The US Cancer Statistics 2001–2018 database and the National Cancer Institute's (NCI) Surveillance Epidemiology and End Results (SEER) program were used in this study. Cause-specific 5-year survival probability was calculated using 60 monthly intervals in SEER\*Stat software. As reported in *Frontiers in Oncology* on July 18, 2022, this study demonstrated a decline in the incidence of HPV-related OPSCC among young males and females during the vaccination era (2014–2018) compared with the pre-vaccination era (2002–2006). Data from SEER indicate that increasing trends in HPV-related OPSCC were primarily observed in middle-aged individuals and elders, particularly within recent years. Additional efforts are needed to improve HPV vaccination coverage in young girls and boys to further reduce the burden of HPV-related OPSCC in the U.S. The University of Texas Medical Branch at Galveston received a \$2 million CPRIT Prevention grant (PP200005) in 2020.