Health Promotion in Texas Parks

Case studies of Houston and Cameron County
Texas Healthy Parks Project
Final Report
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1. Introduction

Public parks are critically important public spaces. They function as sites for recreation, relaxation, nature contact, education, social connections, service delivery, and community events. Parks are open to all, with entry generally free or low-cost. Parks also function to advance societal goals such as protecting source water and biodiversity and enhancing disaster resilience.

An important function of parks is advancing public health. Parks promote health through many biomedical mechanisms, as represented in the figure. Nature contact—a primary motivation for many people to visit parks—is beneficial to health. Parks function as a venue for physical activity, either individual or in groups, either informal or through organized activities. Parks can increase public safety through an "eyes on the street" effect. Time in parks is associated with increased self-reported happiness, which is in turn a predictor of better health. Parks can promote healthy environmental conditions including reduced noise, soothing soundscapes such as birdsong, cooler temperatures on hot days, clean air, and stormwater management. Parks can inspire people with feelings of restoration and awe; these sentiments are associated with health. Parks are places where people connect with each other—an antidote to the growing prevalence of loneliness and its adverse health consequences—and

when managed well, can address longstanding social inequities and help promote harmony between different groups of people. Higher levels of social capital, and reduced prejudice, are predictors of improved health. Finally, parks can boost local businesses and advance prosperity; prosperous communities are healthier than ones that are resource-poor.

Parks activate these pathways through a broad range of facilities, activities, and programs, as shown on the table below. The top row represents active professional engagement by health professionals in park-oriented activities, such as in Park Prescription programs. These initiatives are sometimes integrated with formal health care; for example, physicians who prescribe time in parks may enter the prescriptions in medical records and follow up by checking on patient compliance. The second row represents the use of parks as venues for delivering health services, with variable levels of health professional involvement. For example, a park community center might be used as a site for diabetes screening. The third row represents placement of health-promoting amenities such as Parcourses in parks, generally with health "branding." The fourth row represents efforts to encourage park use and associated healthy behaviors. This includes health-oriented classes in parks, or advertisements urging park use in physician offices. The fifth row refers to the many facilities and programs in parks, from walking trails to organized sports, that comprise traditional park resources. While not generally "branded" as health promotion, they contribute substantially to public health. The bottom row, in blue, represents initiatives targeted to groups with particular identified health needs, such as people with disabilities or elders. Such efforts may touch all the other categories: through health professional efforts such as Park Prescription programs, through park-based health , as shown on the screening and health education, through offering health infrastructure such as parcourses, or simply through offering recreational opportunities that promote health, from trails to organized sports.

Promoting health through parks: A typology

HEALTH PROFESSIONAL ACTIVE ENGAGEMENT	Examples: Park Prescription programs; Walk With a Doc programs.
HEALTH SERVICES PROVIDED IN PARKS	Examples: Health screening programs; health fairs; Medicaid/Medicare/WIC advising.
HEALTH EQUIPMENT SITED IN PARKS	Examples: Parcourses.
HEALTH EDUCATION PROGRAMS IN PARKS; HEALTH PROMOTION SIGNAGE AND BROCHURES; COMMUNITY HEALTH PROMOTION OF PARKS	Examples: Yoga classes in parks; community-wide promotion of park use by health institutions.
ROUTINE PARKS & REC FACILITIES AND PROGRAMMING	Examples: Baseball and soccer fields; sports leagues; pools (not branded as health programs, no involvement of health institutions).
HEALTHY PARK PROGRAMS FOR SPECIFIC GROUPS	Examples: Programs or equipment for children, elders, people with disabilities.

This report presents the results of two case studies conducted by Trust for Public Land for the Texas Parks and Wildlife Department, one in an urban setting (Houston) and the other in a rural setting (Cameron County). Data collection included key informant interviews and in-depth review of websites and documents in both locations, conducted during the latter half of 2023.

2. Parks and health in Houston

2.1 Houston: An overview

Houston, with a population of 2.3 million, is the most populous city in Texas and the fourth most populous in the United States. It is the county seat of Harris County. At 640 square miles, it is also one of the nation's largest cities by area. Situated on gulf coastal plain, most of the city is built on low-lying marshy land; there is extensive natural and constructed drainage infrastructure, including a bayou system.

About 97 square miles (15% of the city's area) lies within the 610 loop, forming a relatively dense downtown area, while the balance, outside the 610 loop, has a more suburban configuration (albeit with a number of denser commercial centers, including Uptown, the Texas Medical Center, Midtown, Greenway Plaza, Memorial City, the Energy Corridor, Westchase, and Greenspoint). Houston is the largest U.S. city without formal zoning regulations.

Houston is demographically diverse, with a population that is roughly 44% Hispanic, 24% White, 22% Black, and 7% Asian. According to the Greater Houston Partnership, Houston ranks fifth among the nation's top 50 cities in the proportion of the population living below the poverty line—11.2% of families, or 19.4% of the population. In the state with the nation's highest proportion of people lacking health insurance (about 18%), Houston exceeds the state average; in Harris County, 22.1% of the population, or 908,000 people, are uninsured.

Houston confronts substantial public health challenges, according to County Health Rankings data (see Table). Many health statistics are available only at the county level, not at the city level. But according to Houston State of Health, 29.4% of Houstonians are sedentary, a figure close to that of Harris County.

Harris County health statistics			
Risk factor or health outcome	**Harris County**	**Texas**	**U.S.**
% of adults who are obese	38%	36%	32%
% of adults who are physically inactive	29%	25%	22%
% of population with diabetes	13%	12%	9%
Poor mental health days in the last month	4.6	4.2	4.4
Poor physical health days in the last month	3.3	2.9	3.0

Source: County Health Rankings, 2023

In addition, according to the Cigna U.S. Loneliness Index, Houston residents are more likely to be lonely than other Americans. About 60% were considered to be lonely, higher than the 54% national level. In the Cigna survey, about half of Houstonians reported sometimes or always feeling alone (48%), left out (51%), or that their relationships with others are not meaningful (45%), and 61% said they sometimes or always felt that no one knows them well. Many of these risk factors and health problems can be addressed, in part, by parks and greenspace, as discussed below.

Houston is a highly automobile-oriented city. According to Walk Score, Houston's average Walk Score is 47, making it the 24th most walkable large city in the nation, and the 6th most walkable city in Texas. (The most walkable cities have Walk Scores above 75.) Houston's Transit Score is 36, and its Bike Score is 49. *Metro Magazine*, in its rankings of the nation's transit systems, ranked Houston at #68. In the context of

this report, these scores are relevant, because Houstonians without access to a car may have trouble getting to parks.

Houston has a diverse economy including energy, health care, manufacturing, aeronautics, and transportation. Texas Medical Center represents the world's largest concentration of healthcare and research institutions.

Politically, there is a mayor-council government with 11 city council districts. Other jurisdictions within the city include 88 super neighborhoods—neighborhoods formally recognized by the city, "where residents and stakeholders can discuss issues impacting their super neighborhood, reach a consensus on projects and develop a super neighborhood action plan (SNAP) for community improvements," and several dozen Municipal Management Districts (MMDs), entities created pursuant to Texas law to support local economic development and to supplement publicly-funded infrastructure and services, funded by ad valorem taxes on local commercial properties. Both super neighborhoods and MMDs may play a role in park development and management.

Also relevant as context for the Houston's parks is Harris County, which contains most of the city of Houston. The county is led by a county judge and four precinct commissioners.

Finally, Houston is part of the Houston-The Woodlands-Sugar Land metro area, which includes a number of other municipalities (in decreasing order of population): Pasadena (population approximately 154,000), Pearland (122,000), Sugar Land (119,000), League City (106,000), Conroe (98,000), Baytown (77,000), Missouri City (77,000), Spring (63,000), Texas City (56,000), and Galveston (51,000). In addition, The Woodlands (116,000) is a census-designated place rather than an incorporated city.

2.2 Houston's Parks

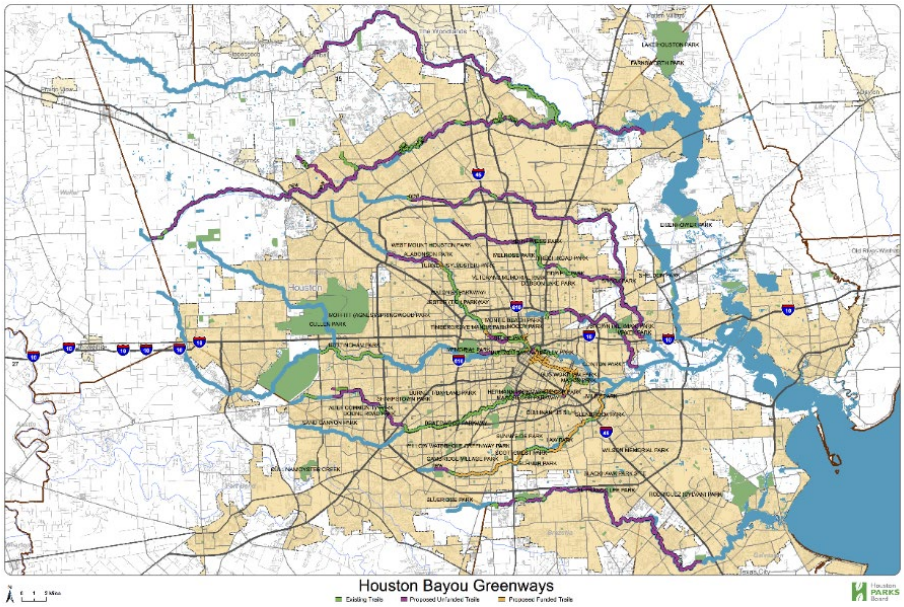
Houston's city park agency is the Houston Parks and Recreation Department (HPARD), led by Director Kenneth Allen. According to the HPARD website, the agency's inventory includes 382 developed parks and more than 167 greenspaces, totaling over 39,501 acres, or nearly 10% of the city's area. Administratively, HPARD is composed of seven divisions: the Director's Office, Recreation and Wellness Division, Greenspace Management, Facilities Management and Development, Management and Finance, Urban Park Rangers and Safety, and Communications.

The city's park inventory includes large landmark parks such as Lake Houston Wilderness Park and Memorial Park, and urban oases such as Tranquility Park, Sesquicentennial Park, and Discovery Green. Hermann Park, located near Texas Medical Center, is home to the Houston Zoo and the Houston Museum of Natural Science. Other facilities managed by the city include the Houston Arboretum and Nature Center and the Lee and Joe Jamail Skatepark, one of the state's largest skateparks.

Harris County parks represent an important part of Houston's park inventory. The county's four precincts own and manage nearly 200 parks, trails, community centers, and related facilities, including some major facilities such as Jesse H. Jones Park, Mercer Botanic Gardens, and Kickerillo-Mischer Preserve. Each precinct has its own park department. Houston residents also have access to parks in nearby cities.

A number of Texas state parks are within easy reach of the Houston metro area. Brazos Bend, Galveston Island, Stephen F. Austin, Lake Livingston, and Huntsville State Parks all lie within a 90-minute drive of the city, with some—such as Sheldon Lake State Park, within Harris County, considerably closer.

There are also national public lands near the Houston metro area. The 163,000-acre Sam Houston National Forest, about 50 miles north of the city, includes the Lone Star Hiking Trail and several recreation areas (Cagle, Double Lake, Stubblefield, Kelly Pond), and the 113,000-acre Big Thicket National Preserve lies about 90 miles northeast of Houston.



A key community organization supporting parks is Houston Parks Board. A major focus for the Parks Board is the Bayou Greenways Project—an ambitious $220 million public-private partnership that includes 150 miles of trails and 3,000 acres of greenspace (see map above).

Local park conservancies and "Friends of" groups play an important role in fundraising for and stewardship of the city's parks. There are park conservancies at several of the city's major parks, including Hermann Park, Memorial Park, Buffalo Bayou, and Emancipation Park. The Midtown Parks Conservancy maintains Bagby and Midtown Parks. Some observers point to a "park funding divide;" thanks to the work of these conservancies, the city's larger parks enjoy relatively robust funding, while smaller neighborhood parks, which depend on HPARD for their budgets, are far less well funded.

In 2023, Trust for Public Land's ParkScore ranked Houston 71 among the 100 largest U.S. cities. This score is based on five factors, as shown in the table.

Houston's ParkScore ranking		
Parameter	**Explanation**	**Rank (out of 100)**
Acreage	Reflects the relative abundance of large "destination" parks including large natural areas that provide health, climate and conservation benefits. Includes two components: the proportion of the city's area dedicated to parkland (12% in Houston, giving a score of 60) and median park size (Houston's score: 42).	51

Access	Indicates the percentage of a city's residents living within a half-mile of a park – the distance most people are willing to walk to reach a destination. For Houston this figure is 61%.	40
Investment	Reflects the financial health of a city's park system. Aggregates park and recreation spending across all agencies and organizations in the city, and includes monetized volunteer hours. In Houston, a total of $96 per capita is spent each year on publicly accessible parks and recreation, below the national average ($108). Only 33% of this is HPARD budget (compared to a national average of 85%); 38% comes from private sources and 1% from volunteer hours (compared to 5.5% and 2% nationally, respectively).	36
Amenities	Reflects the relative abundance of six popular park activities: basketball hoops (34 points out of 100), dog parks (40), playgrounds (25), senior and rec centers (35), permanent restrooms (25), and splashpads (56). Houston's overall score for this category is below the national average.	36
Equity	Indicates the fairness in park and park space distribution across neighborhoods by race and income, based on two metrics: living within a 10-minute walk of a park (35 points out of 100 for people of color relative to white people, 29 points for low-income households relative to higher-income households), and distribution of park space (67 points for neighborhoods of color, 42 points for low-income neighborhoods).	43
Composite rank	Combines scores for all five factors relative to 99 other large cities.	71

An unusual feature of Houston's park system is its financing.[1] The HPARD budget amounts to just $32 per resident annually—compared to $121 in Dallas, $147 in San Antonio, and $150 in Austin. This is the lowest of all the nation's large city (>1 million population) park budgets. This limit reflects funding constraints; a 2019 statewide cap on property tax increases imposed by the Texas Legislature, and a previous 2004 voter-approved tax revenue cap in Houston, constrain the city's budget. However, Houston parks have a highly diversified funding base. In addition to the HPARD budget, other public funding (e.g. Tax Increment Reinvestment Zones, Harris County Parks, Local Government Corporations, Municipal Management Districts) brings the per capita park support up to $69 per resident annually, and private funding raises that amount further to $99 per resident annually. Several points are relevant. First, the city park department budget accounts for less than a third of park spending—a highly unusual circumstance statewide and nationally. Second, the diversity of funding sources is challenging with respect to long-term maintenance and programming. Third, political leaders in Houston have embraced the role of private funding in supporting the city's parks. Mayor Sylvester Turner's Love Our Parks Complete Communities Initiative and 50/50 Park Partner campaign, which target park improvement in underserved communities, have relied heavily on private funding. Fourth, while this private funding is a substantial source of support, it may contribute to park inequities, as high-need parks are those least likely to enjoy private support. Fifth, private funding plays a major role in the health promotion efforts explored below.

2.3 Health promotion in Houston's parks

2.3.1. Integrating health into a Parks & Recreation master plan

Around the world, and across the United States, many park systems have centered their planning and operations, as well as public outreach and branding, on the concept of health. The "Healthy Parks

Healthy People" framework was launched by Parks Victoria, the park agency of the Australian state of Victoria, in 2010, [2] and has been embraced in one form or another by park systems from Europe to Cape Cod to the San Francisco Bay Area,[3] and by the U.S. National Park Service. In the Houston area, Pasadena provides an excellent example of such an approach.

Pasadena is an incorporated city within the Houston metro area. With a population of 154,000, it is Harris County's second largest city. In 2020, following a two-year process, Pasadena released its Healthy Parks Plan—a five year park master plan centered on health. The planning process included not only the city's Parks & Recreation Department, but also several key partners: the Houston Parks Board, the design firm Asakura Robinson, and Land + Water Connections Consulting. A large, multi-stakeholder Advisory Committee provided community input; members included representatives of Harris County Public Health, M.D. Anderson Cancer Center (see Section 3 below), Pasadena Health Center, and the American Heart Association, who provided health perspectives. The plan is available here.

The plan begins with a long-term vision: "a healthy, thriving, and connected Pasadena where safe, beautiful, welcoming parks ensure that everyone has a place to belong, be active, and enjoy nature."

Developing the Healthy Parks Plan involved community engagement with a special emphasis on underserved communities; utilizing local, scientific, and design expertise; assessing existing park and programming resources; and identifying priority locations for park improvements and new parks through mapping of socioeconomic vulnerability, community health, environmental vulnerability, and park need. The community engagement process yielded a number of findings relevant to health: patterns of park use (primarily for physical activity and spending time with family and friends); considerable public appreciation of playgrounds and paths; public interest in being able to walk and bike to parks; the need for shade structures; the need for youth programming and improved access for people with disabilities; and the presence of significant barriers to park use (lack of restrooms and water fountains, uncomfortable weather, maintenance concerns, safety concerns). The plan developed Healthy Parks Design Guidelines to promote physical activity, to promote the mental health benefits of parks, to foster social connections, to reduce extreme heat, to improve air quality, and to support ecological health to benefit people and nature. A strong emphasis on park access for all was part of the planning process and is reflected in the plan.

A series of goals and objectives emerged in the planning process; these have guided park system investments and programming. The top priority was to improve existing parks by renovating and adding amenities where most needed; specific quantifiable recommendations include new parkland acreage, addition of amenities such as drinking fountains and picnic tables, and trails.

Medical and public health professionals, when designing health interventions, typically emphasize evaluation, to assure that desired health outcomes are being achieved. Pasadena's plan includes this important element. The plan recommends using a standard validated tool, SOPARC (System for Observing Play and Recreation in Communities), [4, 5] for assessing physical activity. It also provides a Park Evaluation Tool that includes several categories to be evaluated, such as park access, park features, safety, and aesthetics. One of these categories is health. In this category, the Tool recommends assessing several health-promoting physical features of parks: active transportation infrastructure such as paths; sports facilities such as playing fields and courts; opportunities for social connections such as benches; and opportunities for nature connection such as water views and landscapes. The evaluation does not include programming such as health classes, or health outcomes such as Body Mass Index.

Pasadena's approach involved extensive community input; a reliance on data analysis and mapping to set priorities; an emphasis on park access for all, including vulnerable populations; strategies to advance health through specific, evidence-based pathways; specific goals; and provision for evaluation. This process is an excellent example of park system planning grounded in health outcomes.

2.3.2 Utilizing parks to address health needs identified in a hospital's Community Health Needs Assessment

Not-for-profit hospitals are required to conduct Community Health Needs Assessments (CHNAs) in accordance with the Patient Protection and Affordable Care Act.[6] These assessments aim to identify health needs and strengths in the community that the hospital serves; to prioritize health issues; to inform the hospital's community health improvement plan; and to assist community organizations in their program planning. CHNAs typically address public health issues such as access to health care, diet, and physical activity.

The Memorial Hermann Health System is a large not-for-profit health system, which consists of 17 hospitals as well as numerous cancer centers, heart institutes, sports medicine and rehabilitation centers, and other outpatient facilities across the Houston area. Memorial Hermann, in its CHNAs, identified a range of health problems in its service area, including obesity and overweight, mental health problems, diabetes, substance abuse, cancers, and heart disease and stroke. In response, the system identified four pillars for its community investments: health care access, emotional well-being, food as health, and Exercise Is Medicine.

Exercise Is Medicine is an initiative of the American College of Sports Medicine, which aims to promote physical activity through a variety of strategies. In implementing this program, Memorial Hermann has supported a number of park-based efforts. One is StepHEALTHY, a community-based program that includes health education and exercise activities, offered free of charge in two Houston parks: Highland/DeSoto Park in the Acres Homes neighborhood, and Clark Park in north Houston. The activities at these parks include Walking Clubs, Walk with a Doc and Dancing with a Doc programs, zumba classes, and capacity-building to enable walking club leaders to become group fitness instructors.

Memorial Hermann has also invested in infrastructure improvements and programming in several parks, as detailed in the Table.

Park investments supported by Memorial Hermann Health System

Park	Improvements
Clark Park	• Improved walking access from Burbank Middle School to the park to address safety concerns • Added sidewalk art reflecting community culture • Improved lighting • Created community gardens • Improved basketball and soccer facilities • Launched Soccer for Success sports program for children • Launched Culture of Food Health program
Highland Park	• Improved community center (surface repairs, washing, painting, artwork) • Installed Exergame fitness and gaming equipment

	• Plans to refurbish the outdoor basketball pavilion, in collaboration with the Houston Rockets and HPARD
Moody Park	• Refurbished indoor basketball court and outdoor basketball pavilion in collaboration with the Houston Rockets and HPARD
Forum Park	• Park renovations including improved walking trail, parking lot, half basketball court and mini pitch, in collaboration with Episcopal Health Charities, Texas Children's Hospital and Dynamo Charities

In addition, in 2023 Memorial Hermann began to offer its StepHEALTHY program in Burnett Bayland Park in the Gulfton neighborhood (see section 6 below). These initiatives by Memorial Hermann represent a continuum from assessing community health needs, to identifying parks as a venue for addressing those needs, to investing in both infrastructure and programming in parks.

2.3.3. A cancer center with a major community effort including parks and trails

The National Cancer Institute launched its Cancer Centers Program in 1971, to support cancer research, treatment, and prevention at academic health centers around the nation. There are currently 72 NCI-designated Cancer Centers in 36 states and the District of Columbia, including four in Texas: the Mays Cancer Center at UT Health San Antonio, the Simmons Cancer Center at UT Southwestern in Dallas, the Duncan Cancer Center at Baylor College of Medicine in Houston, and the M.D. Anderson Cancer Center in Houston.

In 2016, the NCI mandated that cancer centers undertake community outreach and engagement.[7] This mandate aligned well with the goal of cancer prevention, because many pillars of cancer prevention—physical activity, weight loss, healthy eating, smoking cessation, social connections—are achieved through community-level interventions.[8, 9] One potential community strategy is promoting parks and greenspace—an opportunity recognized by the M.D. Anderson Cancer Center, and included in its Be Well Communities™ initiative.[10]

The Be Well Communities™ initiative was conceived from the outset as being holistic, rather than confined to traditional cancer prevention "buckets" such as skin cancer screening, prostate cancer screening, and so on. Its work is organized around five elements: healthy eating, active living, sun safety, tobacco-free living, and preventive care. It is grounded in local communities and committed to co-creating its program with those communities. It involves numerous partnerships with organizations across Houston. A key aspect of Be Well Communities™ is its reliance on evidence-based interventions. Three communities are currently engaged: Acres Homes (Be Well™ Acres Homes), Baytown (Be Well™ Baytown), and Pasadena (Pasadena Vibrant Community).

In each of these communities, the Be Well Communities™ program has a steering committee with full decision-making power, informed by data and evidence-based solutions provided by M.D. Anderson. In Acres Homes, there are also paid community engagement liaisons. In each case, M.D. Anderson provides funding, conditioned on regular meetings, data collection and reporting, and other procedural requirements designed to ensure program effectiveness. This funding is leveraged with additional funding from corporate partners, e.g. Exxon Mobil in Baytown and Shell in Pasadena. All three communities identified obesity as a problem, all three prioritized parks as part of the solution, and all three involved close partnership with the parks department.

- *Be Well™ Acres Homes* includes collaboration with Harris Health System, Memorial Hermann Community Benefit Corporation, UTHealth School of Public Health, and more than 30 community organizations. This is a multifaceted program; the role of parks includes improved infrastructure and fitness programs at Lincoln Park, and expanded programming at Vogel Creek Greenway. In addition, there are efforts at several neighborhood schools to promote school gardens.
- *Be Well™ Baytown* also includes extensive collaborations, including with Goose Creek Consolidated Independent School District. Through this partnership, safe walking trails for student and community use were installed at four elementary schools, and Safe Routes to Schools and Safe Routes to Parks plans were developed throughout Baytown. In addition, in collaboration with the Baytown Parks and Recreation Department, pop up park events are hosted monthly to encourage park visits and physical activity, and Baytown PARD launched the Baytown Moves campaign to promote trails, fitness classes, and other community amenities.
- *Pasadena Vibrant Community* began in 2016 as a collaboration of BakerRipley, Brighter Bites, the City of Pasadena, Harris County Public Health, Harris Health System, Memorial Hermann Community Benefit Corporation, the Pasadena Chamber of Commerce, Pasadena Health Center, the Pasadena Independent School District, Shell USA, and the YMCA of Greater Houston. The School District was a particularly important partner, and numerous school-based interventions took place, including both curricular enhancements to promote physical activity and healthy eating, and infrastructure improvements at the schools (tracks, playgrounds, and gardens), which were made available for community use as well—therefore functioning as public parks. A collaboration with Harris County Public Health created an active Safe Routes to Schools program. Pasadena Parks and Recreation activities included new adult recreation classes at locations throughout the city (Sunset Recreation Center, Fogo Recreation Center, PAL Gymnasium, Golden Acres Recreation Center, O'Dell Harrison Recreation Center, the Multipurpose Recreation Center, and Strawberry Park pool). The department also built two new playgrounds, at Red Bluff and Gardens Parks—places that had needed such facilities. Finally, as explored above, the city developed its Pasadena Healthy Parks Plan, with support from both Pasadena Vibrant Community and the Houston Endowment. The role of the Parks and Recreation Department was significant enough that, in 2020-21, the department assumed coordination of the Pasadena Vibrant Community Steering Committee from M.D. Anderson. At that time the initiative was recast as Partnership for a Healthy Pasadena.

An important feature of the Be Well Communities™ approach is outcome measurement—including assessment of its parks-based initiatives. In collaboration with Harris County Public Health, data are collected using people counts, social media engagement, and validated instruments such as SOFIT[11, 12] and SOPARC.[5] M.D. Anderson has published analyses of the impacts of these programs (here and here), documenting increases in such outcomes as physical activity. This commitment to evaluation and accountability—not always a feature of park programs—helps assure positive health impacts of park initiatives.

2.3.4. Health promotion events at, and in partnership with, parks

As noted above, HPARD has jurisdiction over more than 500 venues, accounting for 10% of the city's area. While the HPARD budget is notably low relative to those of benchmark cities in Texas and nationally, the department leverages additional funding from partners to offer a range of health-related

programs and services in parks. Two principal examples—partnerships with Memorial Hermann and M.D. Anderson—are described above.

With respect to facilities, every park has greenspace, and many offer fitness equipment, gyms/weight rooms, and sports facilities. In the system's 60 community centers there are 14 fitness centers and weight rooms, and 22 indoor gyms. There are 232 playgrounds and 27 spraygrounds in parks across the city, and 13 dog parks. These facilities are venues for physical activity and community-building, therefore for health promotion.

HPARD provides ongoing training to staff at the community centers, to build their capacity to offer physical activity programming. Staff might be trained in skills ranging from boot camps to pilates to circuit training. One limitation is that equipment needed for some programs is often not available to the community centers due to budget constraints.

With respect to programming, HPARD maintains an active schedule of adult sports, recreation, and leisure classes, including basketball, flag football, kickball, softball, and volleyball, and an active schedule of youth sports and recreation, including soccer, tennis, baseball, and swimming offered both after-school and during the summer. There are exercise and physical activity programs for elders and for people with disabilities. Evidence shows that such programming increases visits to parks, including by groups that may feel unwelcome or unsafe, and increases physical activity among park visitors. [13, 14]

All 60 community centers hold community health fairs and provide health education. The responsibility for these activities lies with each community center director. These officials are urged by HPARD to conduct community needs assessments to identify health needs. In planning health fairs, community center directors typically bring in vendors, and engage with organizations such as AARP, the Harris County Area Agency on Aging, and walking groups. Nutrition programs are offered by both of the state's land grant universities, Prairie View A&M and Texas A&M. Related events are "Cigna Sunday in the Park," which evolved from "Cigna Sunday Streets" during the COVID pandemic. These events—three in the spring, and three in the fall—include active recreation such as dancing, music, and games, and may also offer health services such as COVID vaccinations. HPARD's fitness director, Shadston Pittman, supports physical activity promotion at health fairs and related events with expertise and participation.

The frequency of health fairs, level of public participation, and health impact are difficult to assess. HPARD does not undertake formal evaluation of its health programming. A word search of the HPARD event calendar for October, 2023, listing events at all 60 community centers and several additional facilities (an adventure park, a wilderness park, a skatepark, and an outdoor theater), revealed 74 hits for "fitness," 71 for "aerobics," 87 for "Zumba," 53 for "exercise," 79 for "pickleball," 84 for "dance" or "dancing," 154 for "basketball," 67 for "walking," 31 for "yoga," and only 6 for "health" (all 6 at the same park)—suggesting a robust program of health-promoting activities, but relatively fewer health fairs.

An important aspect of HPARD's health promotion is its participation in citywide efforts to fight obesity. Since the early 2000s, when *Men's Health* magazine dubbed Houston the nation's fattest city, Houston mayors have tackled the obesity crisis through such efforts—the Get Lean program under Mayor Lee Brown, the Healthy Houston Initiative under Mayor Annise Parker, and currently Go Healthy Houston. This collaborative involves many partners, including city departments (planning, health), health care institutions, organizations such as Bike Houston, and private firms. One of the four pillars of Go Healthy

Houston is Active Living, and HPARD plays a major role in updating and implementing the city's Active Living Plan and in hosting events such as diabetes walks in parks.

2.3.5. An academic partnership for park-based health research

The most robust evidence of the health benefits of parks emerges from rigorous research. Ideally, this research reflects collaboration among parks, the park user community, and academic researchers. An example of such a collaboration is research carried out at the Bayou Greenways.

This research had its origins in 2011, when the Houston Parks Board commissioned Professor John Crompton of Texas A&M to assess the potential economic benefits of what was then a proposed expansion of the Bayou Greenways. The resulting report demonstrated that health benefits would account for a substantial portion of overall economic benefits.[15] This set the stage for follow-up research, to assess the health and economic benefits that emerged over the subsequent decade of Bayou Greenway expansion.

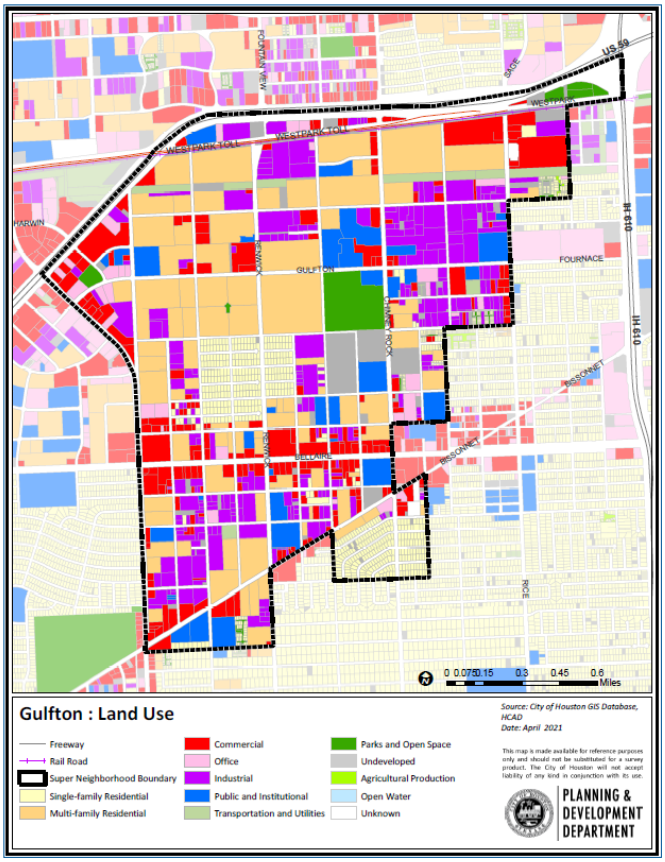
This research, carried out in 2020-21, was a collaboration of the Center for Health & Nature and the Houston Parks Board. The Center for Health & Nature, in turn, is a joint effort of Texas A&M Health Sciences Center, Houston Methodist, and Texan By Nature. The research was led by Dr. Jay Maddock of Texas A&M School of Public Health, who supervised Bridget R. Simon-Friedt, then a post-doc at the Center for Outcomes Research at Houston Methodist. The team investigated the association between access to the Bayou Greenways (measured in several ways) and hospitalizations for 13 specific diagnoses, across 140 residential Zip Codes in Harris County—57 with greenway access and 83 without. They found a mixed pattern of results, likely complicated by confounders such as socioeconomic status and health insurance status.[16]

A notable feature of this research was its funding by the Houston Endowment through a contract with the Houston Parks Board. The Parks Board played a key role in the research, providing geoprocessed data on trail access points, trail length, timing of trail completion, and nearby population. This exemplifies the potential for collaborative research that blends parks expertise and health expertise. It also demonstrates the ability and willingness of health research institutions—both Houston Methodist and Texas A&M—to serve the information needs of the parks community.

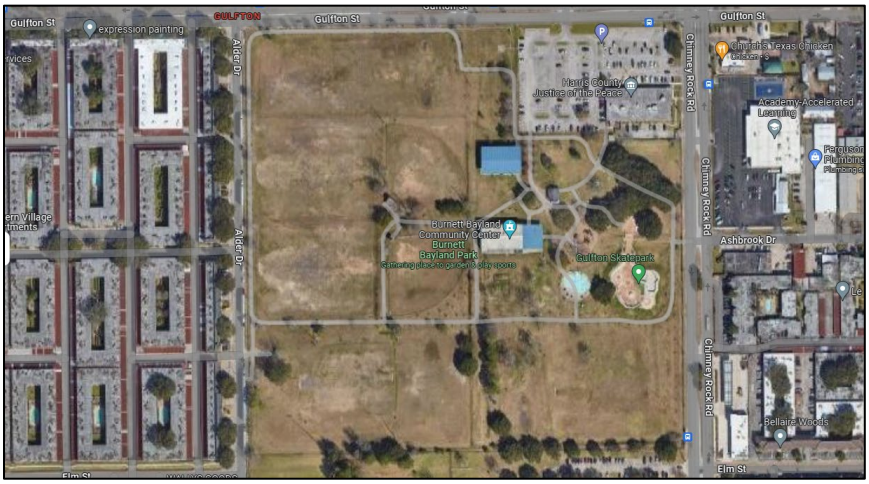
2.3.6. A community-based effort to bring greenspace to an underserved neighborhood

Gulfton is a neighborhood in southwest Houston, just outside of Loop 610. It is a highly urbanized neighborhood of large apartments and scattered commercial and light industrial uses, with relatively few single-family homes. Gulfton is Houston's most densely populated neighborhood. As of 2019, according to the Houston Planning & Development Department, the population was roughly 48,000—about 72% Hispanic, including many recent immigrants, 15% non-Hispanic Black, and the balance divided among Whites, Asian, and others.

As shown on the map below, Gulfton has just one parcel of parkland/open space: Burnett/Bayland Park, at the southwest corner of Gulfton and Chimney Rock. The satellite image shows that the park has limited vegetation. Indeed, vegetative cover is low throughout the neighborhood.



Super Neighborhood 27 (Gulfton) Map from City of Houston
https://www.houstontx.gov/superneighborhoods/27.html



Burnett Bayland Park. Source: Google Earth

In 2020, heat mapping of Houston by the Houston Harris Heat Action Team (H3AT) identified Gulfton as an extreme urban heat island—up to 17°F hotter than other parts of the city. This finding spurred action in the community. This action was able to build on a foundation of strong community leadership and pre-existing efforts, such as the Complete Communities designation in 2017, a subsequent community-based planning process that called for more greenspace, the Super Neighborhood Council, and Madres

del Parque. The community invited the Nature Conservancy, city and county Public Health agencies, Connect Community, and other organizations to collaborate. What emerged was a community-based effort called "Greener Gulfton for Nature, Health, and Resilience," or "Greener Gulfton" for short.

Greener Gulfton successfully raised funds during 2020-21 from a variety of sources, including Federal CPTED funds, the Houston Endowment, and others. Working with the design firm, Asakura Robinson, Greener Gulfton developed a Community Action Plan, which was completed and released in late 2021.

The plan is grounded in a One Health framework—the notion that human health, ecosystem health, and animal health are intertwined, and that community solutions that deliver health, biodiversity, and resilience require this holistic approach.[17, 18] Indeed, the Greener Gulfton Action Plan opens with the statement, "Nature is a key element in making our neighborhoods healthier and safer." Trees, rain gardens, bioswales, and other nature-based solutions are high priorities for Greener Gulfton. Accordingly, among the actions envisioned in the plan were:

- funding and implementing a Burnett Bayland Park Master Plan for improved recreational and natural experience;
- activating a neighborhood urban forestry strategy to mitigate heat, improve air quality, and support wildlife;
- increasing gardens, parks, and natural habitats at schools for improved health and academic achievement;
- creating cool corridors including improved sidewalks and crossings, to facilitate walking and cycling;
- implementing a green stormwater study to reduce street-level flooding and add greenspace;
- and creating nature-rich civic spaces for cultural, physical, mental, and biodiversity health.

With regard to the last of these, Greener Gulfton proposed a "La Placita" Pilot Project—essentially pop-up parklets, consisting of simple modular components (planters and seats) that can be arranged to promote social gathering, planting, or even art. Initial design took place in collaboration with UP Art Studio and local artists.

Unlike many park-based efforts to promote health, Greener Gulfton originated neither in the parks sector nor in the health sector. Instead, it arose as a community-based effort, inspired by the need to address a specific problem—heat. But interviews revealed a widespread love of nature in the community, and the broad approach that developed linked nature, including parkland and other greenspace, with human health. As the community undertakes master planning for its park, creates additional greenspace, and activates these places, health will likely be a prominent priority.

2.3.7. Nature-based climate solutions doubling as health infrastructure

As climate change increases the risk of severe heat, severe storms, flooding, and other extreme events, nature-based solutions—also known as green infrastructure—have emerged as key strategies. Examples of nature-based solutions include trees and other vegetation, open greenspace, wetlands, river and stream renaturation, and bioswales.[19, 20] These are effective in building resilience to extreme events; they cool hot places,[21] buffer storm surges, manage stormwater, stabilize soils, and more. Such solutions have considerable appeal: they are generally less expensive than engineered "hard" solutions, and they deliver a range of social, economic, environmental, and health co-benefits.[22-24] Cities across the nation are increasingly implementing nature-based solutions.[25]

One set of co-benefits emerges when nature-based solutions double as parks. In such cases, there is a double benefit for health. *During* extreme events, they reduce impacts such as heat stress and flooding. *Between* extreme events, they deliver all the benefits of parks: recreation, physical activity, social interactions, and more.

This set of benefits is exemplified by The Hill at Sims. This stormwater detention basin and adjacent land occupy over 100 acres in the Sunnyside neighborhood in southern Harris County, along Sims Bayou and Scott Street.

The Hill at Sims Park. Source: Harris County Precinct One. https://www.hcp1.net/HillatSims

The project, led by Harris County Precinct One and the Houston Parks Board, consists of upgrading the site so that it functions as a full-fledged park. As described in the project plan, initial improvements include a system of pedestrian trails on the site, a new pedestrian/bicycle bridge connecting to Sims Bayou Greenway and Margaret Jenkins Park, plantings, and amenities such as signage and parking. Later planned improvements include enhancements to the 60-foot-high hill that give the project its name (a hilltop structure, concrete walks and nature paths, overlook/gateway points, and hill security barriers), and further plantings.

This is an opportune park development. The site is near three schools (Kipp Sunnyside High School, Woodson Junior High and Elementary School, and Law Elementary School), so it will offer student access. It also sits in a densely populated area, many of whose residents do not have 10-minute walk access to a park. Given its size, it has the potential to serve as a regional park that draws visitors from a broad area.

The Hill at Sims exemplifies how a nature-based climate solution, offering climate resilience, can also function as a local and regional park, offering all the associated health and social benefits.

2.3.8. A park co-located with a medical center, offering respite for patients, families, and staff

Sometimes, a park can deliver health benefits because of its location. This is the case with Hermann Park, one of Houston's iconic parks. It is located adjacent to the Texas Medical Center—literally across the street from Children's Memorial Hermann Hospital, Harris Health Ben Tab Hospital, and the V.A. Medical Center, and a short walk for other facilities. While there is no formal arrangement, HPARD

personnel report that staff, visitors, and even patients take advantage of the park by visiting. Hermann Park thus serves a function akin to that of a traditional hospital garden—reducing stress, and promoting well-being and perhaps healing. [26]

2.4 Summary: Parks and Health in Houston

As one of the nation's largest cities in terms of both population and area, with a vibrant economy, and with a population that is highly diverse demographically, Houston in many ways occupies a category of its own. Nevertheless, Houston confronts problems that are common across cities in Texas and nationwide, such as high levels of poverty and uninsurance and high levels of health risk factors such as sedentary lifestyles and loneliness—problems that parks can help address.

Houston's parks, while extensive, earn moderate ranks on a national basis with respect to acreage, access, funding, amenities, and equity. However, Houston demonstrates a wide range of strategies for park-based health promotion. These include: integrating health into a Parks and Recreation master plan; utilizing parks to address health needs identified in a hospital's Community Health Needs Assessment; a cancer center with a major community effort including parks and trails; health promotion events at, and in partnership with, parks; an academic partnership for park-based health research; a community-based effort to bring greenspace to an underserved neighborhood; nature-based climate solutions doubling as health infrastructure; and a park co-located with a medical center, offering respite for patients, families, and staff. Houston's reliance on private funding may favor the larger, iconic parks at the expense of neighborhood parks in resource-poor neighborhoods; at the same time, providing parks for all communities is a priority for the city's political leadership and park department, as well as for health institutions that are supporting park facilities and programming. The city's network of strong public-private partnerships; substantial engagement and investment in parks by leading health care institutions; and partnerships with academic institutions to document the health benefits of parks, all help leverage parks to promote health. Many of these lessons may be useful to cities and towns across the state and nationally.

3. Parks and Health in Cameron County, Texas

3.1 Cameron County: An Overview

Cameron County, in the Lower Rio Grande Valley, is the southernmost county in Texas. The county has an area of 892 square miles and a population of about 425,000, of which about 90% is Hispanic and 9% non-Hispanic white. About 60% the county's population lives in two sizeable cities: Brownsville, the county seat (pop. 187,000) and Harlingen (pop. 72,000). The remainder of the county is relatively rural; towns include San Benito (pop. 24,000), Los Fresnos (pop. 7,800), La Feria (pop. 7,300), Port Isabel (pop. 6,300), Santa Rosa (pop. 3,200), Rio Hondo (pop. 2,700), and Palm Valley (pop. 1,200). County-wide, the median household income is about $43,000, and about 25% of the population falls beneath the poverty line.

The Cameron County Parks & Recreation Department (CCPRD) has responsibility for 14 parks, 2 community centers and several beach access areas. Five of the 14 parks are coastal parks—four on South Padre Island and one on the Arroyo Colorado—and nine are community parks. All of the parks are located in the unincorporated parts of the county with the exception of the Santa Rosa Community Park in the City of Santa Rosa and the Bejarano-McFarland Memorial Park in the city of Port Isabel. Many of

the parks are in or near *colonias*. The two community centers are both located in Brownsville: El Centro Cultural (adjacent to La Esperanza Community Park in the *colonia* of Cameron Park) and Bob Clark Social Service Center (near Pedro Benavides County Park, at the hub of approximately 36 *colonias*). Cameron County is in the process of developing a nature park on 39 acres of *resaca* frontage property in the community of Olmito. (*Resacas* are oxbow lakes formed by former tributaries of the Rio Grande River.)

Cameron County's borders include the Rio Grande River and Gulf of Mexico coastline (including a long stretch of South Padre Island). There are also inland waterways (the Arroyo Colorado River). Accordingly, outdoor recreational opportunities include both land-based and water-based activities.

In addition to county parks, there are also city parks in the larger cities and towns, as well as the 1,200-acre Resaca de la Palma State Park, and the 98,000-acre Laguna Atascosa National Wildlife Refuge. Opportunities for recreation and nature contact also exist offshore (e.g. fishing at the Rio Grande Valley Reef) and in private facilities such as golf courses.

The county's Parks & Recreation Department, headed by Mr. Joe E. Vega, has an annual budget of approximately $12.5M. Its full-time staff of 75 employees grows to 148 employees during the peak season. CCPRD is self-sustained and does not operate on ad valorem taxes.

With regard to health institutions, Cameron County is home to four general hospitals (not including special-purpose facilities such as for rehabilitation or mental health):

- Valley Baptist Medical Center - Brownsville (243 beds)
- Valley Baptist Medical Center - Harlingen (586 beds)
- Valley Regional Medical Center (Brownsville) (187 beds)
- Harlingen Medical Center (Harlingen) (112 beds)

Other health facilities outside the county also play a role in county residents' health care. For example, Driscoll Children's Hospital in Corpus Christi, about 2.5 hours north of Brownsville, and South Texas Health System Children's Hospital in Edinburg, about an hour west of Brownsville, may provide inpatient care to Cameron County children.

Cameron County Public Health, the county's public health agency, conducts traditional environmental health activities ("sanitarian" functions such as septic tank inspections, vector control, and restaurant inspections) as well as health education and promotion. Brownsville and Harlingen also have city health departments. Of note, Cameron County's parks and recreation functions are not co-located with its public health functions. While Brownsville is the county seat, CCPRD is based on South Padre Island (27 miles east of Brownsville) and Cameron County Public Health is located in San Benito (20 miles west of Brownsville).

The following paragraphs review several kinds of health-related initiatives that park systems may undertake, and discuss the role of each in Cameron County.

3.2 Parks and Health in Cameron County

3.2.1 Parks & Recreation partnerships with health institutions

Park systems may partner with a broad range of health institutions, including local hospitals, medical societies, public health agencies, health sciences schools, and/or insurers. CCPRD maintains partnerships with several health institutions, which help to provide health-related programming:

- **Texas A&M University**: Texas A&M has established multi-purpose Community Resource Centers (CRCs) at both El Centro Cultural and Bob Clark Social Service Center to provide a variety of services to help improve the self sufficiency, health and well-being of residents of the *colonias*. The CRCs serves as platforms for delivery of education, workforce training, health education, human services, youth, elderly, housing, and joint training programs.
- **University of Texas Rio Grande Valley** (UTRGV) Area Health Education Center (AHEC): This AHEC provides clinical health care services, health screening, telemedicine, health promotion, health education, recreation, disease prevention, community development, and other scholarly activities and service in and around the Bob Clark Social Service Center community.
- **UT Health Science Center at Houston**: UT Health provides a medical mobile clinic at Bob Clark Social Service Center that serves as a referral service for primary care and chronic disease management. The program provides free services to the uninsured population in the area, including: health education and counseling, physical exams and some lab tests, immunizations, preventive health, medication prescriptions, and diabetes and hypertension management. Both adults and children are served.
- **Driscoll Health Plan**: The Driscoll Health Plan (DHP) is part of the Driscoll Health System which includes Driscoll Children's Hospital in Corpus Christi, which has served the children of South Texas for more than 65 years. DHP has a Community Connection Center Room at El Centro Cultural to help families in the region with basic items such as hygiene care, nursing mother supplies, baby items, and cleaning items. In addition DHP provides a variety of health education topics in both English and Spanish.

In summary, CCPRD has a robust set of partnerships with health institutions, which utilize Cameron County's community centers to deliver a range of health and social services to communities in the county.

3.2.2 Health professional collaborations e.g. park prescriptions, Walk with a Doc programs

Some park systems participate in park prescription programs. In these programs, health care providers prescribe time in parks to their patients, often entering these prescriptions in the patients' medical records and tracking whether their patients followed through. For example, Austin's park prescription program is a collaboration with the UT College of Pharmacy. Other park systems collaborate in "Walk with a Doc" programs that invite people to walk in the park with physicians. For example, Denison Parks and Recreation, in Grayson County, TX hosts a Walk with a Doc program in collaboration with the Grayson County Medical Society. While CCPRD does not engage health professionals in such programs, it does offer a range of park-based programs that promote health (see below).

3.2.3 Health services delivered in parks

Parks are a potential setting for offering health services; they are located near where people live, they are safe and trusted places, and they often have facilities such as community centers that are suitable settings for health service delivery. Cameron County's parks deliver health services in several ways.

As described above, a range of health services is offered in community centers that are co-located with parks. In 2021, CCPRD in partnership with the UT Health and Science Center established an AHEC medical facility at the Bob Clark Social Service Center. This facility offers eligible individuals physician health screenings, consultation, prescription medicine and follow ups at little or no cost. It also gives

patients access to educational resources enabling them to better manage chronic diseases such as diabetes, heart disease, obesity and poor mental health.

In addition, the Bob Clark Social Service Center houses a WIC Clinic, and both the Bob Clark Center and El Centro Cultural offer family counselling, health screenings, and health education. Health fairs are provided from time to time; the Cameron County Health Department participates in these events, offering screening and other services. In providing such services, Cameron County enters into agreements with the relevant social service agencies. Most social service programming is directed to the county's underserved communities.

Another kind of park-based health service is assistance with health insurance. As noted above, both the Bob Clark Social Service Center and El Centro Cultural offer assistance with CHIP, Medicaid and Medicare.

In summary, CCPRD utilizes its social service centers to deliver a wide range of health services, particularly to underserved communities.

3.2.4 Park-based recreational programs and classes that promote health

Many park systems host sports programs, an effective way to promote physical activity and social interaction. Cameron County is no exception. CCPRD offers a range of such recreational activities. The Bob Clark and El Centro Cultural centers offer classes such as yoga, zumba and mindfulness. Nutrition classes coupled with demonstration cooking are also provided. Classes are designed to raise awareness of the benefits of healthy eating, of how to select nutritional whole food ingredients, and of recipes for preparing them.

CCPRD partners with various organizations to host a number of events each year aimed at promoting health and wellness. These events are tailored to promote outdoor recreational activities for people of all skill levels. Examples of events held in the county parks include the Jail Break Run, the RAV (Run Against Violence) Run, and surfing and volleyball competitions, all of which help to promote a healthy lifestyle.

Most, if not all, Cameron County parks have some degree of organized league play. Team sport activities promote physical health and wellbeing through the rigors of play and practice, as well as helping participants learn about discipline, respect, and following rules.

CCPRD offers a summer program for children aged 5-12. Recreational activities that promote health are offered as part of the program. In addition, health education and nutrition education presentation are offered to the children to educate them on the importance of healthy lifestyles.

CCPRD also partners with the Texas General Land Office in an Adopt-A-Beach Program. Three Adopt-A-Beach clean ups throughout the year (fall, spring and winter) attract thousands of volunteers. These cleanups provide a healthier environment for beach visitors, while providing volunteers with the opportunity for outdoor physical activity and social interaction.

3.2.5 Health-oriented facilities and equipment in parks

CCPRD has routinely prioritized walking trails, playgrounds, and baseball and soccer fields in its park designs. Several years ago, in response to the growing popularity of parcourses, CCPRD began incorporating these amenities into its parks; two new parcourses (outdoor exercise tracks with exercise

stations along the way) are currently being added to existing parks. In one, the equipment will be arrayed along a walking trail. In the other, a cluster of workout stations will be placed beneath a large shade canopy, centralizing the activity near the playground and splash pad where parents can get in a workout while keeping an eye on their little ones.

3.2.6 Park-based health education programs

Many parks in Cameron County offer on-site classes and other education programs that promote health. CCPRD offers numerous health-related educational programs through its two social service centers, in partnership with the agencies noted above. These range from monthly diabetes classes to Supplemental Nutrition Assistance Program (SNAP) assistance. In addition, as noted above, health education is included in the children's summer programs. In summary, CCPRD offers extensive health education in its parks and social service centers.

3.2.7 Park-based programming targeting specific groups (demographic, age, health conditions)

Many parks in Cameron County tailor their health-related programming to specific groups such as children, elders, and people with disabilities. CCPRD has paid particular attention to autism in designing its playgrounds. In 2018, the department invested over $500K in developing its first all-inclusive park. Through collaboration with autism non-profit organizations and medical professionals, the department created an inclusive park capable of serving 75-100 individuals at any one time. In 2023 the department will begin construction of an all-inclusive splash pad capable of serving 50-70 people at one time, along with other inclusive improvements to walking trails, landscaping and restroom facilities.

4. Discussion and conclusions

Both Houston and Cameron County have extensive and diverse park infrastructure. In both the urban and the rural setting, the parks are sites of extensive efforts to advance public health. In Houston, while the park system faces challenges such as budgetary constraints, a robust set of health promotion strategies is being implemented across the city's parks. These include: integrating health into a Parks and Recreation master plan; utilizing parks to address health needs identified in a hospital's Community Health Needs Assessment; a cancer center with a major community effort including parks and trails; health promotion events at, and in partnership with, parks; an academic partnership for park-based health research; a community-based effort to bring greenspace to an underserved neighborhood; nature-based climate solutions doubling as health infrastructure; and a park co-located with a medical center, offering respite for patients, families, and staff. Identifying vulnerable populations and those without park access, and providing such access, emerge as key themes. Houston's reliance on private funding may favor the larger, iconic parks at the expense of neighborhood parks in resource-poor neighborhoods; at the same time, the city's political leadership and park department, as well as key investments by health institutions, prioritize providing park access for all. Other key themes include the city's network of strong public-private partnerships; substantial engagement and investment in parks by leading health care institutions; and partnerships with academic institutions to document the health benefits of parks. Cameron County, a rural jurisdiction with a population of about 425,000 and a relatively high proportion of low-income residents, also utilizes its parks to promote health and well-being in a variety of ways. The Cameron County Parks and Recreation Department maintains relationships with several major health institutions, both within the county and from other parts of the

state, and offers extensive health services such as screenings and health education in its social service centers and parks. In addition, CCPRD maintains a robust portfolio of recreational programs in its parks, which promote physical activity and related health benefits. Current innovations include the installation of parcourses and the development of inclusive parks, designed to accommodate people with autism spectrum disorders.

Across the park systems of Houston and Cameron County, several elements of success in health promotion may be identified. These include:

- Strong park system leadership commitment to utilizing the parks for health promotion.
- Robust partnerships with local health care institutions.
- Robust partnerships with academic institutions that provide research, health education, and other health services.
- Public-private partnerships, including with "Friends of" groups and private companies and individuals, that support health promotion activities.
- A focus on under-resourced communities where health needs are greatest, with explicit commitments to park equity and health equity.
- Programming that includes organized sports, classes, health fairs, and other health-promoting activities.
- Utilizing park facilities, especially community centers, to provide health services such as diabetes screening and Medicaid counseling.

Many of these lessons may be useful to cities and towns across the state and nationally.

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