



5. PUBLIC HEALTH

THE NEED of the public to avoid preventable diseases through increased physical activity.

The Centers for Disease Control and Prevention reports that nearly two-thirds of Tennesseans do not get enough regular exercise to sustain good health, and 31.5% get no exercise at all. Inactivity in the population is taking its toll: 67.4% of adult Tennesseans are now overweight or obese, and the state has the nation's highest rate of preventable adult diabetes.

Encouraging physical activity, a longtime priority of the parks and recreation community, has become a major concern as obesity and diabetes have continued to rise steadily over the past ten years. There are multiple of causes of inactivity, which vary by age, race, and income. Any effective solution will require a concerted effort to find and fight these causes on many fronts. For this reason, recreation providers are beginning to work with the public health community as never before.

Despite a convergence of priorities, the recreation and public health professions have not had a history of coordinating their efforts, because their disciplines

and perspectives are almost diametrical opposites. One focuses on providing resources and services at the local, personal level. The other concentrates on addressing large-scale, structural factors. In addition, the two disciplines are oriented toward different federal agencies with different policies and priorities. The recreation community receives direction and funding through the Land and Water Conservation Fund in the Department of Interior, while the public health field looks to guidance and support from the Department of Health and Human Services and related public health entities.

These two perspectives are, in fact, complements of

one another. Both are attacking the problem of physical inactivity from different angles.

Inactivity and Human Evolution

Contemporary life is so filled with hours of inactivity – working at a desk, driving a car, watching television, etc. – that it is important to consider the sedentary lifestyle in a historical context. As the human body evolved over millions of years, its physiology adapted to the need for prodigious amounts of walking, running, climbing, and other physical activities. Unlike the sloth, which hardly ever moves, we are built to function as natural athletes.

As late as the 1950s, the majority of Tennesseans lived in rural areas and engaged in some form of physical labor almost every day. The concept of a fitness center would have seemed ludicrous in those days. The transition to an urban, sedentary life took place very rapidly, bringing with it a new preoccupation with convenience and comfort. Contemporary life has freed us from demands for vigorous exercise, but our bodies

still require physical activity, oxygen, water, and food, just as they did in prehistoric times.

The physiological responses to stress appear to magnify the impact of inactivity. Our prehistoric ancestors adapted to the stress of being a prey species with a “flight or fight” response, producing a sudden burst of adrenaline when needed to mobilize extra power in a life threatening encounter. We no longer have to worry about being eaten today, but stress is still a part of our daily lives. It takes the form of chronic stress about things like long work hours, job insecurity, and a host of other worries. But these kinds of stresses do not impel us to run or fight, and recent research suggests that chronic stress coupled with inactivity predisposes human beings to overeat and put on fat.

The Role of Local Parks and Recreation

A report by the President’s Council on Physical Fitness and Health regarding the effectiveness of local parks in promoting healthy exercise is summarized in the box at right. It should be noted that this report did



President's Council on Fitness and Sports: The Role of Parks in Encouraging Physical Activity

The President's Council on Fitness and Sports published a report in its March, 2008, Research Digest, which summarized recent research regarding the potential role of parks in shaping physical activity levels. Some of these findings are as follows:

Potential

- The current evidence suggests that there is enormous potential for parks to increase physical activity across the United States.
- To effectively address public health issues such as obesity and sedentary lifestyles, residents can benefit greatly from access to parks and open spaces for physical activity.

Proximity

- The level of neighborhood walking engaged in by older adults in Portland was significantly associated with both the total acreage of green space in the neighborhood and the number of parks, paths, and trails per neighborhood acre.
- Neighborhoods with a greater proportion of park area were associated with greater physical activity levels in young children.
- An increased diversity of park facilities and supporting amenities was related to increased physical activity levels of both children and adult park visitors.
- Children with a playground within 1 km of home were almost five times more likely to be classified as being of a healthy weight compared to those children without playgrounds in nearby parks.

Park Design

- In predicting whether a park was used for physical activity, the number of features in the park was more important than its size or its distance from study participants.

- Parks with paved trails were almost 27 times more likely to be used for physical activity than parks without trails.
- Structured activity opportunities (or programming) at parks may be a key facilitator of park use and of the type of physical activity that occurs in parks.
- An emerging trend in community park design is to include a wide variety of features (trails, skate parks, picnic pavilions, boulder climbing areas, tennis courts, playgrounds, and open land) in close proximity to one another in order to promote intergenerational park activity.

Recreation Programming

- Programming is necessary to attract people to parks where park location is not optimal and park features are not unique.
- Having a critical mass of programs gives self-directed park visitors some guarantee that there will be people using the park, and may increase real and perceived safety.
- In order to increase park use and participation in park-based programming, people need to be aware of available opportunities. Providing more information about parks is often cited as a strategy to increase park use.

Park Funding and Spending

- The importance of funding and organizing park maintenance should not be underestimated. Park and leisure experiences rely on the quality of surroundings and overall cleanliness of facilities and the environment. Park-based physical activity interventions that do not first create safe and clean park environments are doomed for failure.

not consider the role of indoor facilities in encouraging greater participation. Many local parks departments have recreation centers with workout rooms and indoor sports courts. Many metropolitan departments have indoor swimming pools. Indoor facilities are in use year-round, are more focused on fitness activities than are passive parks, and tend to be free of concerns about crime and safety. These are places where people congregate in large numbers, allowing fitness programming to reach the more people. In addition, urban minority populations maybe less drawn to outdoor parks than to indoor facilities because of safety concerns. A comprehensive picture of the role of parks and recreation providers requires that these facilities be considered as a critical part of the mix of local recreation opportunities.

Tennessee’s Active Recreation Infrastructure

There are currently 140 organized parks and recreation departments located in 74 of the state’s 95 counties. This plan’s Recreation Provider Survey received responses from 55 departments located in 41 of the 95 Tennessee counties. The reporting counties contain 74% of Tennessee’s total population.

The survey asked for the total land and water resources and recreation facilities managed by the agency. The departments reported a total of 37,338 land acres. Developed recreation facilities in these parks included those listed in the table below.

This inventory indicates a significant investment in facilities for encouraging active recreation. What it does not show is where these facilities are located in relation to demographic groups that are at risk for low activity levels and high obesity incidence. This plan’s proposal for a **Tennessee Recreation One-Stop** website will address that inventory need by developing a GIS inventory of all local facilities in the state. It is anticipated that local parks and recreation departments will be motivated to supply such data because inclusion on the website will help them reach a far greater audience.

Increased information about parks and recreation

opportunities will benefit the public as well as recreation planners. As the PCPFS report states: “In order to increase park use and participation in park-based programming, people need to be aware of available opportunities. Providing more information about parks is often cited as a strategy to increase park use.” The 2009 TRAB Survey confirmed the importance of information access:

- 28.5% were dissatisfied or neither satisfied nor dissatisfied with the current availability of recreation information.
- 23.5% said not knowing where to go was a reason they did not participate more.
- 72.2% said having recreation information accessible on the Internet would increase their participation somewhat to very much

Local Park Facilities in Tennessee

Baseball, softball fields	576
Football, soccer fields	299
Tennis courts	296
Playgrounds	286
Multituse trails (mi.)	206
Foot trails (mi.)	187
Basketball outdoor	131
Indoor sports facilities	93
Multipurpose fields	71
Interpretive trails (mi.)	33
Swimming pools outdoor	31
Hike trails (mi.)	30
Mountain bike trails (mi.)	30
Horse trails. (mi.)	25
Swimming pools indoor	16
Skate parks	14
Swimming lakes	10
Disc golf courses	9
Dog parks	6

A GIS inventory will allow TDEC to compare the locations of park facilities with areas of high target group densities. A “catchment area” can be defined for each park, based on a standard distance which people can be expected to travel to reach a park, with variations for specific demographic groups. It has been suggested that each Tennessee resident should have a park within one-half mile of home. Analysis of the GIS local parks data will show which areas in the state have an insufficient supply of recreation opportunities to encourage greater physical activity. The net result of this inventory process will be to match solutions with needs, for both recreation planners and the public, with a level of accuracy that has not been possible in the past.

TDEC is seeking ways to help the local parks and recreation infrastructure become more effective in addressing public health issues. In 2006 the department’s Recreation Educational Services division undertook a survey of local parks and recreation departments to identify the condition and extent of health and fitness

facilities and programs provided by these departments and formulate opportunities for partnership and collaboration between parks and public health, with the goal of reducing obesity and improving physical fitness among Tennesseans. The study had several significant findings:

- Lack of adequate funding for staff and facilities is a primary constraint facing these departments.
- They are not targeting high-risk populations or offering programming to attract participation by inactive residents. Programs are more centered toward athletics for those already physically active.
- They are not providing adequate educational programming about fitness and health.
- More partnering is needed with public health entities, schools, private health clubs, hospitals, and cooperative extension agencies.

TDEC continues to seek ways to integrate local parks and recreation providers into the larger fight against obesity and preventable diseases.



Conclusions

Available research suggests that close-to-home parks that are properly designed and maintained can achieve a measurable improvement in levels of activity, especially when coupled with fitness and health programming and education. TDEC-PARTAS, through its technical assistance and grants to local parks departments, is in a central position to facilitate the role of parks in combating inactivity and obesity in Tennessee. The Tennessee Recreation and Parks Association (TRPA), which includes most organized parks and recreation departments in its membership, can help as well.

Fortunately, there exists a mechanism for aligning the priorities of local parks departments with the state's broader public health initiatives. Interagency contacts initiated while developing this plan have resulted in a TDEC representative being invited to serve on the Tennessee Department of Health's Obesity Task Force, which is currently developing a State Obesity Plan. This plan can be more effective if it includes the local parks and recreation infrastructure as a key element in a comprehensive set of strategies.

It should be noted, however, that local parks and recreation departments are chronically underfunded in Tennessee, giving them little room to expand their range of services into fitness and health programming or outreach to targeted populations. A dedicated state funding source for parks and recreation, one that includes funding for programming as well as facilities, as proposed in this plan's **Advocacy and Funding** initiative, will be needed to support the role of Tennessee's parks and recreation infrastructure as part of the state's overall strategy for combating inactivity and obesity.

2015 Action Plan

A TDEC representative should serve as an active partner on the Tennessee Obesity Task Force, and should develop specific strategies for integrating the efforts of local parks into the State Obesity Plan. In developing these strategies, the following should be considered:

- Follow-up research to the 2009 TRAB Survey, to gain deeper insight into the participation constraints identified in the survey. Such research could be funded through a private foundation grant to TRPA.
- Focus groups of targeted high-risk populations (African-Americans, Hispanics, senior citizens, teens) to identify specific participation constraints and develop strategies for addressing them.
- TDEC grant funding priority for applicants with effective outreach programs, especially those targeted to high-risk populations.
- Technical assistance and training in overcoming barriers to participation through park design, programming, and community outreach.
- Addressing the information barrier by facilitating the collection of geospatial information about parklands, facilities and programming from local parks, for incorporation in the Tennessee Recreation One-Stop website.
- Analysis of the GIS inventory of local parks to identify critical local gaps in the recreation delivery system, coupled with TDEC technical assistance and grants to help local entities to help fill those gaps.

2020 Vision

TDEC, the Tennessee Department of Health, and the state's network of local parks and recreation departments will be active partners in encouraging the population to increase their levels of activity and exercise. The state will achieve a measurable decrease in levels of inactivity and obesity through a well-coordinated set of strategies on many fronts.

Coordination Links

Tennessee Recreation One-Stop. The website will ensure that information about parks and recreation is readily accessible and that users will be able to find close-to-home opportunities with ease.