DENVER
HEALTHY KIDS, HEALTHY COMMUNITIES
CASE REPORT

DENVER, COLORADO

Evaluation of the Healthy Kids, Healthy Communities National Program

December 2009 to December 2013

ACKNOWLEDGMENTS

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BACKGROUND

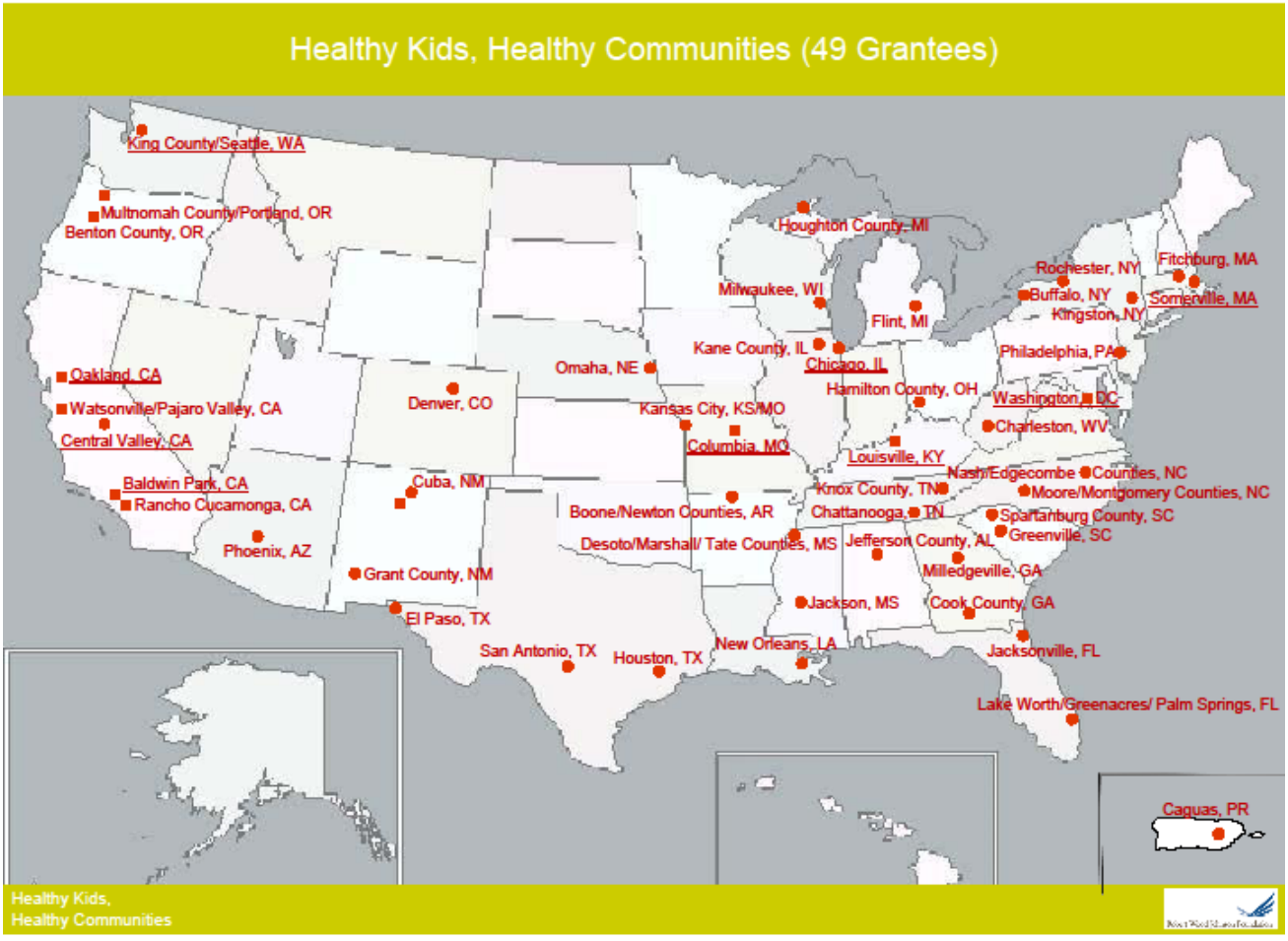
Healthy Kids, Healthy Communities National Program

With the goal of preventing childhood obesity, the Healthy Kids, Healthy Communities (HKHC) national program, funded by the Robert Wood Johnson Foundation (RWJF), provided grants to 49 community partnerships across the United States (Figure 1). Healthy eating and active living policy, system, and environmental changes were implemented to support healthier communities for children and families. The program placed special emphasis on reaching children at highest risk for obesity on the basis of race, ethnicity, income, or geographic location.[1]

Project Officers from the HKHC National Program Office assisted community partnerships in creating and implementing annual workplans organized by goals, tactics, activities, and benchmarks. Through site visits and monthly conference calls, community partnerships also received guidance on developing and maintaining local partnerships, conducting assessments, implementing strategies, and disseminating and sustaining their local initiatives. Additional opportunities supplemented the one-on-one guidance from Project Officers, including peer engagement through annual conferences and a program website, communications training and support, and specialized technical assistance (e.g., health law and policy).

For more about the national program and grantees, visit www.healthykidshealthycommunities.org.

Figure 1: Map of Healthy Kids, Healthy Communities Partnerships



Evaluation of Healthy Kids, Healthy Communities

Transtria LLC and Washington University Institute for Public Health received funding from the Robert Wood Johnson Foundation to evaluate the HKHC national program. They tracked plans, processes, strategies, and results related to active living and healthy eating policy, system, and environmental changes as well as influences associated with partnership and community capacity and broader social determinants of health.

Reported "actions," or steps taken by community partnerships to advance their goals, tactics, activities, or benchmarks from their workplans, formed community progress reports tracked through the HKHC Community Dashboard program website. This website included various functions, such as social networking, progress reporting, and tools and resources to maintain a steady flow of users over time and increase peer engagement across communities.

In addition to action reporting, evaluators collaborated with community partners to conduct individual and group interviews with partners and community representatives, environmental audits and direct observations in specific project areas (where applicable), and group model building sessions. Data from an online survey, photos, community annual reports, and existing surveillance systems (e.g., U.S. census) supplemented information collected alongside the community partnerships.

For more about the evaluation, visit www.transtria.com/hkhc.

Denver HKHC Partnership

In December 2009, the Denver HKHC partnership received a four-year, $360,000 grant as part of the HKHC national program. The partnership focused on neighborhoods in Southwest Denver: Westwood, Villa Park, West Colfax, Sun Valley, Barnum, Barnum West, and Valverde. Denver Public Health was the lead agency for the Denver HKHC partnership. The partnership and capacity building strategies of the partnership included:

- *Community Engagement:* The partnership worked with the city departments to create a structure to engage residents in the healthy eating and active living policy and environmental change processes. In partnership with Revision International, a non-profit organization that developed a promotora model to hire and train residents in health and gardening, HKHC partners and promotoras continued to provide education and outreach to other residents living in Southwest Denver.
- *Partner Collaboration:* Partners represented various other healthy eating and active living partnerships (e.g., Denver Sustainable Food Policy Council, designed to influence policy that fosters food security for all community members, and promotes a healthy, equitable, and sustainable local food system, with consideration for economic vitality and environmental impact).

See Appendix A: Denver Healthy Kids, Healthy Communities Evaluation Logic Model and Appendix B: Partnership and Community Capacity Survey Results for additional information.

Along with partnership and capacity building strategies, the Denver HKHC partnership incorporated assessment and community engagement activities to support the partnership and the healthy eating and active living strategies.

The healthy eating and active living strategies of Denver HKHC included:

- *Active Transportation (Denver Moves):* Adopting the Denver Complete Streets Policy and provided input for the Denver Moves plan set standards for future infrastructure improvements that occurred, including: adding 25 miles of bike lanes, subsidizing costs for Denver Housing Authority residents to gain access to the local bike share, securing funding for the design of Denver's first Bike Boulevard, installing crosswalks and a four-way stop, and adopting the Decatur Federal Station Area plan.
- *Parks and Play Spaces:* Partners focused on resurfacing and adding a playground in Weir Gulch and redesigning Cuatro Vientos/Four Winds Park.
- *Urban Agriculture/Farmers' Markets*: Partners supported the creation of one-acre Ubuntu Urban Farm, Lakewood Dry Gulch community garden, and the Valverde community garden, while adopting zoning codes with language on the gardens, greenhouses, and mixed-use developments to protect urban agriculture.
- *Grocery Stores:* Partners supported the opening of two Mi Pueblo Latin Markets in areas designated as food deserts and the acceptance of Supplemental Nutrition Assistance Program (SNAP) benefits at the markets. The owners of Mi Pueblo set up SNAP recruitment and enrollment booths staffed by Hunger Free Colorado. In addition, funds were leveraged and used through the Community Transformation Grants to support a new position within Denver Environmental Health to look at opportunities to incentivize healthy food retailers and create more access to healthy foods.

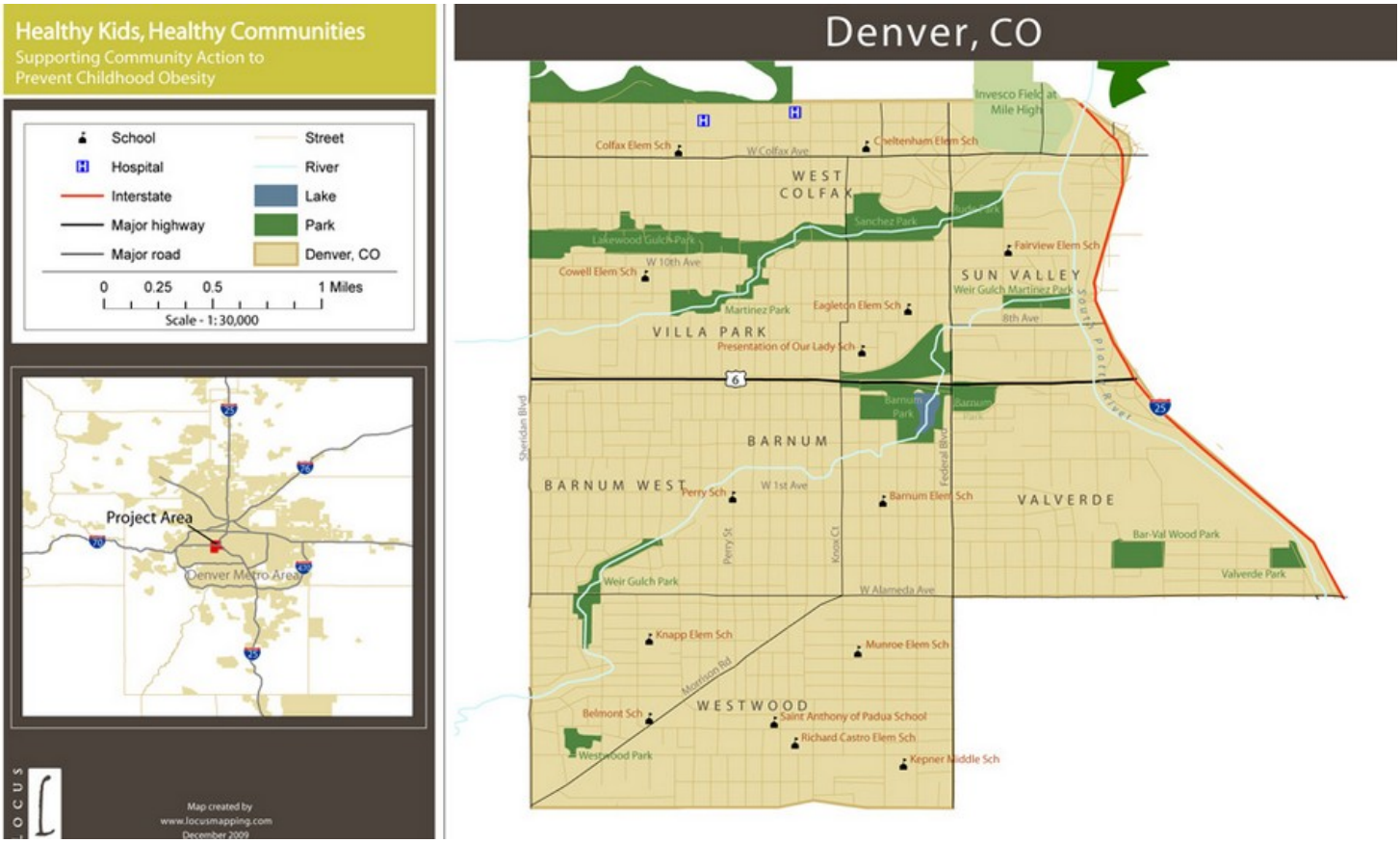
COMMUNITY DEMOGRAPHICS

The pilot neighborhoods located in Southwest Denver - Westwood, Villa Park, West Colfax, Sun Valley, Barnum, Barnum West, and Valverde - were selected due to existing opportunities and high minority populations and health disparities in the area (see Table 1). Approximately 56% of adult residents do not have a high school diploma, and only 7% of residents have a college diploma. It is a young community with 34% of residents under the age of 18.[2]

Table 1: Denver and Neighborhood Demographics

Community	Population	African American	Hispanic/ Latino	White	Asian/ Pacific Islander	American Indian/ Native American	Percent Living Below Poverty Line
Denver[3]	600,158	10.2%	31.8%	68.9%	3.4%	1.4%	18.8%
Barnum West[3]	5,376	0.7%	74.7%	21.4%	1.5%	1.0%	13.4%
Sun Valley[3]	1,448	26%	53.9%	7.7%	8.4%	1.2%	71.5%
Val Verde[3]	3,941	3.2%	77.4%	15.1%	2.0%	1.2%	27.7%
Villa Park[3]	8,758	1.9%	78.0%	17.0%	0.8%	1.4%	19.7%
West Colfax[3]	9,740	4.0%	61.9%	29.5%	1.6%	1.4%	28.9%
Westwood[3]	15,486	1.7%	80.1%	11.4%	4.4%	1.0%	24.1%

Figure 2: Map of Denver and Target Neighborhoods[4]



DENVER HKHC PARTNERSHIP

The original partnership was active in addressing the high obesity rates in Denver communities since 2006 with funding and resources provided through a Live Well Colorado grant to address neighborhood-level factors. The Denver HKHC partnership came together for the HKHC grant in 2008 during the year-long application process, even though the actual funding was not received until 2009. The partnership guiding HKHC project efforts had both expanded and shifted its efforts to include a more regional approach recognizing that systems, policy, and environmental changes needed to be at the municipality level. Additional neighborhoods located in Southwest Denver were also targeted.

The partnership was made up of a diverse group of non-profit organizations and city agencies that provided expertise from various perspectives, from grassroots community-based activists to more policy-oriented activists working directly with policy-makers.

Lead Agency and Leadership Teams

The Denver Public Health was physically housed in the hospital system which had been operating for over 100 years and was the lead for HKHC was the lead agency for the HKHC project. Denver Public Health was instrumental in helping foster empowerment and trust among residents living in Denver Housing Authority locations which led to more connections to the community for a population often considered more transient.

Key project staff members were employed by the lead agency. Their non-HKHC responsibilities included ongoing internal committee meetings and occasional and temporary work directives. The Project Director's role within HKHC was to work with the partnership to keep partners informed, connected, and networking together while also facilitating meetings to develop the community-level workplan, large coalition meetings, small workgroup meetings, and the day-to-day staff meetings. The Project Director was associated with the partnership since it originally began in 2006, and her role shifted when the partnership received the Community Transformation Grant. The Project Director became largely responsible for this Community Transformation Grant, while a new Project Director was hired to carry out HKHC responsibilities.

One of the strengths of lead project staff was their reputation within the target communities. There was genuine commitment to these communities that had been shown over time by attendance in countless neighborhood meetings and continual communication about neighborhood needs to leaders and decision-makers.

See Appendix C for a list of all partners.

Organization and Collaboration

Partners represented various other healthy eating and active living partnerships. Because of the many local collaborations in Denver devoted to healthy eating and active living, the Denver HKHC Coalition brought together representatives from each of the existing partnerships in an effort to collaborate and build on the existing initiatives. Coalition meetings were not useful for engaging some neighborhood residents due to the structure of the meeting or negative cultural values associated with large meetings or government-related leaders.

PARTNERSHIP FUNDING

As part of the HKHC initiative, grantees were expected to secure a cash and/or in-kind match equal to at least 50% of what was provided by Robert Wood Johnson Foundation over the entire grant period. Through community engagement and capacity building efforts, the Denver HKHC partnership generated $2,363,324 in resources from local, regional, state, and national sources.

- Convergence Partnership funds to develop, implement, and evaluate policy and environmental strategies that addressed the intersection of violence prevention and built environment.
- United States Department of Agriculture Food Desert grant to develop and evaluate a Youth Farmers' Market.
- Weigh and Win provided staff time, promotion materials, incentives, and equipment for a community weight-loss kiosk program.
- Tiger II HUD Grant provided focused on Southwest neighborhoods in Denver to address active transportation and access to healthy foods.
- Colorado Department of Transportation provided staff time and bike counters to capture data.
- Revision International provided funds for the development of an urban farm, urban agricultural support, and promotora staff time. Additionally, Revision International received two grants which supported promotora staff and urban agriculture development activities for HKHC.
- Denver Public Health received the Centers for Disease Control and Prevention Community Transformation Grant, and some of those funds supported staff time to work on HKHC initiatives.

See Appendix D: Sources and Amounts of Funding Leveraged for more information.

COMMUNITY ASSESSMENT

Access to Healthy Foods

City Kitchen was a case study project focused on determining which type of food hub would best meet the needs and characteristics in West Denver. Different types of food hubs were compared including large hubs with shopping, business development, food distribution, and aggregation of food from outlying farming communities, and simple hubs with just farmers, business space, and a logistical site coordinator. This analysis of food hubs across the nation concluded in September 2012 with a proposed business plan design or template for a food hub that best suited Denver including preferred site selections located on the west side, which was designated as a food desert area. The next steps anticipated would include finding interested business and community partners and writing grants for funding, while continuing to research the best way to build and promote land use around a destination food hub when the surrounding area was characterized as industrial with a history of disinvestment.

Active Transportation—Denver Moves

Denver Moves mapped all existing bicycle and pedestrian routes and recommendations described in previous city plans. The analysis provided overlapping priority corridors and citywide integration opportunities. It resulted in a total of 1,330 miles of existing and planned pedestrian and bicycle infrastructure, which included: planned bicycle facilities and designated bike routes; pedestrian focus areas and pedestrian routes; green streets; planned trail improvements; planned bicycle, pedestrian, and bike/bus facilities; and planned bicycle and pedestrian facilities.

Denver HKHC coordinated with the Colorado Department of Transportation to acquire placement of bike counters at two points in time at two different locations to inform the city of utilization of these areas. This information supported the prioritization of target area streets in need of treatment in the Denver Moves (Bike and Pedestrian Connectivity) and the Federal Decatur Station area plans.

The bike share program in Denver tracked usage using GPS which then enabled the program to provide data to its customers including travel distances, locations, and calories burned. Additionally, fun competitions with prizes, from vacation packages to t-shirts, incentivized active transit through cycling and use of multiple bike share stations.

Denver Public Health and partners recruited 30 residents (including 4 teenagers) in Westwood that were trained to conduct street design environmental audits focused on Morrison Road and roads surrounding the local schools in order to inform the city on improvements and advocate for street segments to be prioritized for capital improvements.

Parks and Play Spaces

Denver Public Health and partners also recruited 30 residents (including 4 teenagers) in Westwood that were trained to conduct parks environmental audits (e.g., presence and absence of conditions in the environment) and direct observations (e.g., usage of features in the environment) of the Weir Gulch. The park tool was used to teach park evaluation strategies to Westwood and Barnum West residents, with the intent to inform Parks and Recreation on segments throughout Weir Gulch from Sheridan to 1st Street that needed improvements, including what applicable features needed to be added or removed. See Appendix E for a full report. Some key findings included:

- Children were least likely to be observed in sedentary activities in both parks (6.8% Weir and 10.4% Lakewood). More children were observed in very active types of activity in Weir Gulch (63.5%), whereas more children were observed in moderate types of activity in Lakewood Gulch (52.2%).
- Adolescents and adults were least sedentary in Max Brandon (27.8%) and Whaley (49.1%), but more than two-thirds of all adults were sedentary in Brennan (75.0%) and Bassett (89.7%).
- Adults were least sedentary in Lakewood Gulch (25.7%), whereas the majority of adults (87%) were observed in sedentary activities in Weir Gulch. Although a high percentage of adults were not observed in active behaviors in either park, over half (58.4%) were seen in moderate activities in Lakewood Gulch.

PLANNING AND ADVOCACY EFFORTS

Food Policy Council

Denver Environmental Health led the establishment of the Sustainable Food Policy Council for Denver, and the Denver HKHC partners were represented on the Council. Four Denver HKHC core workgroup representatives served on the decision-making committee for the Council. The Denver Sustainable Food Policy Council formed policy priorities including: 1) Remove regulatory barriers in regards to zoning for sales of raw agriculture on residential property, 2) Encourage institutional purchasing of local foods at the municipal level, 3) Expand the acceptance of SNAP benefits at farmers' markets, 4) Revise the Sustainable Food Policy Council membership application to strategically recruit resident members from food insecure neighborhoods in Denver, and 5) Encourage broadening the range of traditional alternative food retail outlets in target neighborhoods.

City/Comprehensive Plan

Denver Environmental Health led and Denver HKHC partners contributed toward a "health in all policies" approach as they participated in reviewing and inserting language in a draft health chapter for the Comprehensive Plan. The Comprehensive Plan process was delayed with no estimate provided as to when the Comprehensive Plan Update Process would be initiated.

Westwood Promotoras

Denver HKHC partner Revision International contracted with Denver Public Health to utilize ten promotoras for outreach in the West Denver community in regards to increasing walking and biking, leading design for park improvements, and improving local food access through the use of backyard gardens, urban farms, and farmers' markets. This model of contracting work through a community-based organization for outreach was being shared with Public Works and Parks and Recreation in order to align strategies and collect meaningful data for the city. Promotoras gathered resident input on how walking and biking could be improved within the design of park improvements at Weir Gulch.

> "How their community looks really speaks to, I think, our real authentic intention to wanting to lift this community's voice, but realizing that it is a long-term process, just as policy work is a long process, we have to really build up that trust."
> — Staff

Complete Streets

Denver HKHC led the development of the Complete Streets policy language through facilitated meetings with city staff to review best practice Complete Streets policy templates and to develop a Denver-appropriate policy and received consulting from ChangeLab Solutions to understand areas of strengths and weaknesses. The National Complete Streets Coalition provided an analysis through technical assistance offered by HKHC and determined the policy to be a strong score (52.4). The policy was intended to maintain and institutionalize the Complete Streets culture through mayoral and administration changes. This was successful as the Mayor and Council added more bicycle infrastructure as well as positions within the city to support Safe Routes to School, bicycle and pedestrian planning.

ACTIVE TRANSPORTATION—DENVER MOVES

Denver HKHC partnership supported the Denver Moves efforts with the development of the first complete streets policy and supporting infrastructure improvements to create opportunities for all residents, particularly those living in West Denver, to have access to bike lanes, bike sharing, and transit.

Policy, Practice, and Environmental Changes

Several policy and environmental changes occurred related to Denver Moves including:

- A Master Plan for Denver Housing Authority's Sun Valley Homes property was completed and adopted by City Council in April 2013. The master plan incorporated an understanding of the infrastructure, risks, costs and opportunities associated with accessing the Decatur Federal Station area.
- Stakeholders and community members were engaged in development of revitalization plans for the South Platte Corridor and the Decatur-Federal light rail station area plans, which were adopted.
- Denver's first Complete Streets policy was approved in May 2011.
- West Denver areas for bicycle infrastructure improvements that were incorporated in the Denver Moves Plan were identified, resulting in the addition of 25 miles of bicycle lanes (17 miles of bike lanes and 8 miles of sharrows) in West Denver to the following locations: 13th Avenue connecting West Denver to downtown, Lakewood Gulch connecting Lakewood to Denver at Sheridan to the South Platte River trail in Sun Valley, 17th Avenue near Lake Middle School (including four-way stop sign improvements), and Morrison Road in Westwood.
- The West Rail Line was officially operating as the W line. It was the first completed rail line of the RTD FasTracks Project. The 12.1 miles of light rail ran between Denver Union Station and Jefferson County Government, adding 11 new stations.
- Access to active transportation for public housing residents was expanded in partnership with Denver Bike Sharing and the Denver B-cycle.
- Funding was leveraged to support the design of the city's first bike boulevard on Knox Court.

Implementation

Complete Streets

Due to the lack of flexibility in streetscape infrastructure, the streets in Denver could not be easily widened to accommodate all of the requirements for Complete Streets designation. Therefore, major investing was needed to make the infrastructure improvements.

Bicycle Infrastructure

Community engagement was an important part of the Knox Court Bike Boulevard design. Bike boulevards were streets designed to give priority to non-motorized users and discourage through-traffic by motorized vehicles. A separated space in the street was not necessary, because non-motorized users' preference was communicated through the roadway design, signage, and traffic calming measures.

Transit

The planning process focused on addressing the barriers to utilizing the West Corridor public transit investment along a one-half mile radius around the Decatur-Federal Light Rail Transit Station in the Sun Valley neighborhood. Project goals included a Master Plan for Denver Housing Authority's Sun Valley Homes property and increased understanding of the infrastructure, risks, costs, and opportunities associated with this station area. Project efforts were aimed at increasing healthy lifestyle opportunities in the community such as active transportation options.

Bike Share Program

Denver B-cycle, the city's bicycle sharing program, added 30 new stations. The system grew to 83 stations and 700 bicycles. The new stations were located in several neighborhoods: West Highland, Highland,

Jefferson Park, Union Station, Five Points, North Capitol Hill, City Park West, City Park, Congress Park, Cheesman Park, Capitol Hill, Lincoln Park, Baker, Speer, and Auraria. Most of the new stations were close to or within a mile of a bus or light rail stop.

Denver HKHC developed a relationship with the Denver Housing Authority to create an incentive program tied to physical activity and potential active transportation choices for those living in public housing locations.

> "Living Streets is a continual conversation. Complete Streets, you know, we adopted that policy, approved that policy knowing that it was just an incremental step, not the final step." — Partner

Population Reach

The Complete Streets policy targeted residents living in Denver, and special emphasis was placed on residents living in the Southwest Denver neighborhoods through infrastructure improvements, master plans, and the development of new B-cycle locations.

Challenges and Lessons Learned

Community engagement and staff transitions created challenges for project staff during the last year of the project due to an increasing amount of responsibility associated with engagement. Outreach efforts needed to focus on alternative strategies for non-English speaking residents who did not feel comfortable in a group setting, such as connecting with churches, using interviews and personal conversations to engage these communities. Strategies should be developed to reach out to unregistered and/or immigrant residents in effort to overcoming underlying sense of mistrust within west-side communities.

A major challenge of the Denver bike share program was its requirement for credit card payment which proved to be a barrier to lower-income residents who struggled to obtain credit approval.

Another challenge of the regional transit model was that regional routes and transit stop locations required riders to use many transfers to reach their employment destination. However, residents within certain catchment areas advocated for additional services or complained about lack of access to services. The Regional Transportation District was required to divert resources going to regional routes to Denver Public Works in order to support local transit needs.

HKHC project efforts focused on geographic equity and resource equity by making connections into the west-side of the city in order to reach communities that did not have a loud voice in transit initiatives or the policy process. Partner organizations and links with community-based organizations with trusted community stakeholders were being utilized to reach these residents.

Sustainability

The city departments in collaboration with the Denver HKHC partnership has piloted a system to engage community residents in the design, planning, and decision-making process for active transportation issues. Unfortunately, within the HKHC grant, there was not sufficient time to ensure the community resident engagement process was institutionalized within the city department structure. The intention is to continue to engage communities and create a larger city department change to ensure resident involvement in planning and decision-making. With this ongoing community buy-in, along with the adoptions of strategic transportation plans and a Complete Streets policy, Denver is moving closer to sustainability of Denver Moves initiatives.

PARKS AND PLAY SPACES

Denver contains natural gulch structures, deep V-shaped valleys formed by erosion, that run through the city. The trail was part of a larger pedestrian and bike network connecting residents to parks and other locations in the city.

Source: Transtria LLC

Policy, Practice, and Environmental Changes

Weir Gulch

Funds were allocated to Weir Gulch improvements in the Sun Valley neighborhood and the integration of resident input to prioritize the design, including a playground in the construction. A walk replacement project was completed by replacing existing asphalt with concrete along Weir Gulch a 0.76-mile stretch from Alameda to Sheridan.

Cuatro Vientos/Four Winds Park

Unused bond money was allocated to the construction of the Cuatro Vientos/Four Winds Park at 3800 Alameda Park. Denver Parks and Recreation developed 1.43-acre Cuatro Vientos/Four Winds Park located on the corner of Alameda Avenue and Newton Street in the Westwood neighborhood. Amenities at the park included a new playground area, a water play feature, a shaded shelter and picnic area, turf playing fields and a concrete walking trail.

Implementation

Weir Gulch is located in an urban, low-income area and ran diagonally through Sun Valley up to Westwood. It had a variety of different types of surfaces and widths. The Weir Gulch was prioritized for a 2013 Master Drainage Plan study to scope drainage, any acquisitions, and park improvements.

In general, gulches were designed to be open green spaces for recreation and playgrounds that were connected to pedestrian and bike paths similar to neighborhood parks. Gulches did not often present the option of being developed into new park spaces without removing buildings or making large-scale infrastructure and land modifications. In some areas, naturally occurring land features like steep hills and high automobile traffic areas were located between the end of one trail and the beginning of another path which interfered with residents choosing active transportation if they did not want to cross high-traffic areas or climb steep hills. In such cases, connector paths linked other trails, and gulches were paired together.

Community input was gathered by partnering with the city to engage residents to determine their priorities for the space around Weir Gulch. Two blocks along Weir Gulch was designated to be developed into a youth recreational space with a playground in 2014.

A trail connection was paved during the first year of the grant that led to one of the major bike paths next to Cherry Creek within low-income Sun Valley neighborhoods in West Denver.

One of the first pedestrian and bike bridges was built as a result of the light rail system being developed in the area which adds connectivity over to the West Colfax area.

Public meetings were held to guide the design of the park located at 3800 Alameda in the vacant lot in Westwood. It was a vacant lot for many years. Westwood neighborhood had 1.2 acres of park and open space per 1,000 people. This number fell short of the standards set in Denver: 10 acres of recreational open space for every 1,000 residents.

In partnership with Denver Parks and Recreation, Denver HKHC supported the allocation of funds to Weir Gulch improvements in the Sun Valley neighborhood and the integration of resident input to prioritize design including a playground in the construction of Weir Gulch. Denver's HKHC coalition partner Revision International contracted with Denver Public Health to utilize ten Promotoras for outreach and assessments in

the West Denver community. This model of contracting work through a community-based organization led to the identification of a permanent opportunity to require this in all future Denver parks and recreation processes. Denver Parks and Recreation staff confirmed the value of budgeting a small amount of funding to support community organizations in assisting with community outreach to increase participation in park design processes.

The HKHC coalition was in the beginning stages of institutionalizing public and community engagement in the policy process. Initial discussions shifted the local government orientation of public engagement. Progress toward the completion of this goal was intentionally slowed in order for the Weir Gulch Urban Drainage study to get underway. Additional progress was made on prioritizing Weir Gulch during an HKHC coalition partner meeting on sustaining park activation at the end of the grant period. It was determined that the Master Drainage Plan would be delayed to perform additional community engagement, because community members still needed the opportunity to understand the potential for Weir Gulch to contribute to the active living network in Southwest Denver.

Population Reach

Denver and Southwest Denver residents were targeted through infrastructure improvements to the Weir Gulch and Cuatro Vientos/Four Winds Park.

Challenges

A major challenge to obtaining funding for active living in Denver was the stigma of the community being one of the nation's most healthy and fit cities in the nation. Additionally, community engagement efforts for those residents who did not usually attend neighborhood association meetings were difficult.

Lessons Learned

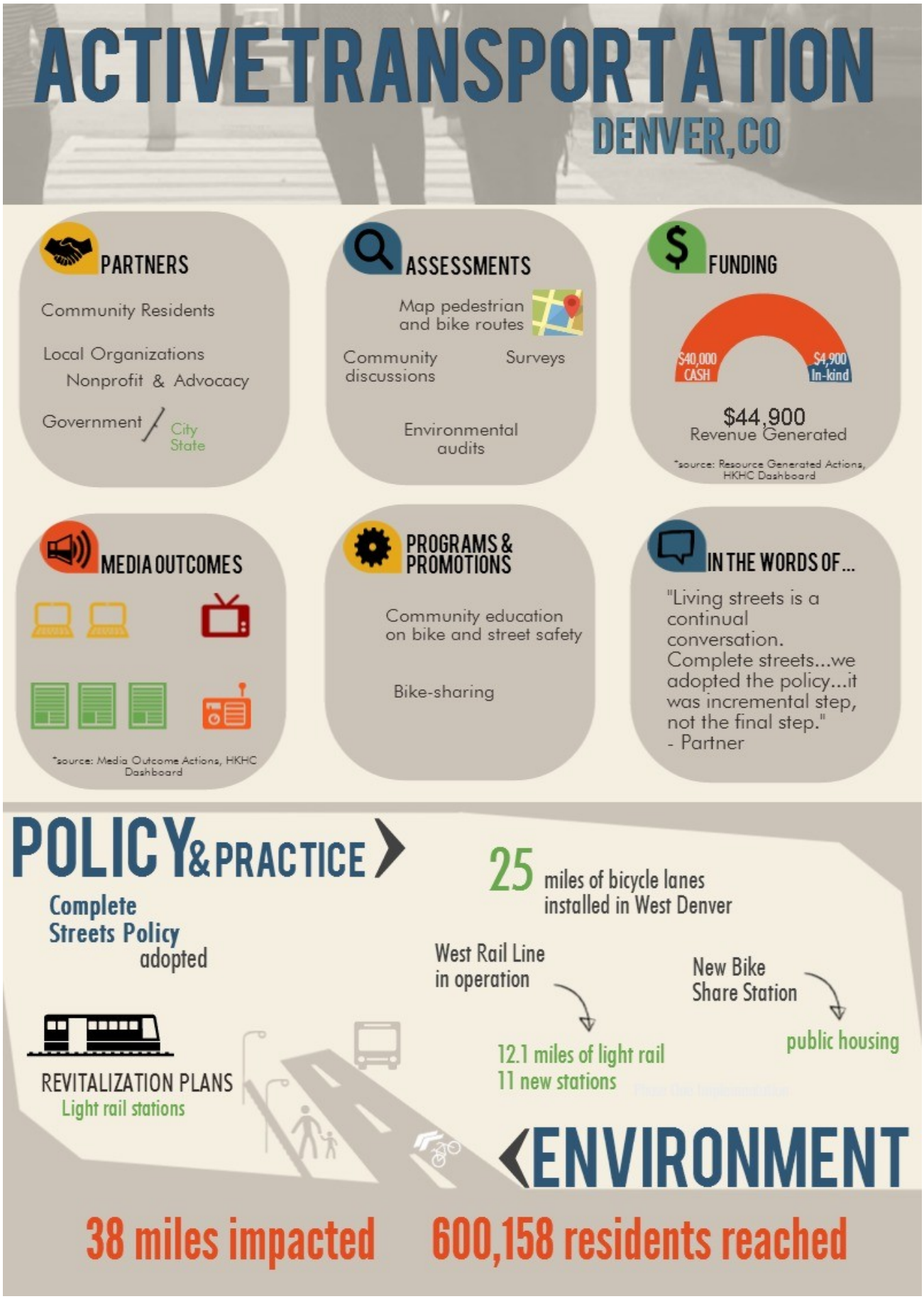
Working with community-based organizations to reach out through trusted community gatekeepers who already had relationships with residents was a good process in engaging residents that did not traditionally attend meetings. Another example of community engagement efforts were based on outreach efforts through the Denver Livability Partnership as they required community meetings were held in the residents first language (typically not English).

Sustainability

Commitment to support community engagement alongside Denver Parks and Recreation was expressed from Westwood Unidos, community members, and Denver Public Health. During discussions on park activation in the last Denver HKHC coalition partner meeting, the community articulated a strong need for a community recreation center. Denver's HKHC coalition partners, Denver Parks and Recreation, and The Trust for Public Land were looking for opportunities to integrate this priority into future workplans. Coalition partners LiveWell Westwood and Westwood Unidos were able to move forward on the design components of the recreation center by beginning to work with a University of Colorado Denver class. All partners involved have a strong commitment to implementing a Southwest Denver recreation center and continuing the momentum around parks and play spaces gained through HKHC.

See Figure 3: Parks and Play Spaces Infographic for more information.

Figure 3: Parks and Play Spaces Infographic



URBAN AGRICULTURE/COMMUNITY GARDENS

The Denver HKHC partnership worked with key partners to advance urban agriculture policies and create urban farms and gardens that would provide residents in the target neighborhoods access to healthy foods.

Policy, Practice, and Environmental Changes

Several policies and environmental changes occurred to improve resident access to urban agriculture and community gardens including:

- Zoning codes with garden, greenhouse, and mixed-use language were adopted to achieve protections for urban agriculture.
- A Memorandum of Understanding was established between Denver Parks and Recreation and Denver Urban Gardens to allow community gardens on Denver Parks and Recreation land. The terms included defined organizational roles and elucidated the important role community gardens played in neighborhood access to park land, open space, and their ability to engage residents to be stewards of shared neighborhood space.
- Three gardens were established including a garden near the Lakewood Dry Gulch in West Colfax, a garden in Valverde, and a one-acre urban farm called Ubuntu Urban Farm in Westwood neighborhood built with Revision International.

Complementary Programs/Promotions

Revision International was established in 2007 to create an organization that could coordinate community resources based on a model it had learned while working in other developing countries with areas of unemployment and poverty. The model was based on enhancing an individual's livelihood in a sustainable way while preserving his/her environment in order to address the increasing disparity between wealth and poverty affected by international trade practices. Revision International analyzed other organizations' worked within low-resource communities in Denver around social justice and healthy, sustainable food.

Revision International started a backyard garden program, which primarily provided hands-on training and resources to start backyard gardens. Education on productive garden planning addressing location, soil quality, and family produce preferences was provided along with tangible resources including seeds, plants, and compost. A drip irrigation system was installed, and families were trained on how to use this method to keep water costs to a minimum. The structure of the program followed a two- or three-year involvement with families. New families received a visit every week, and second-year families received a visit every other week in order to encourage the family to become self-sufficient and take ownership of its garden. The backyard garden program built momentum and engaged residents in getting involved in the urban agriculture movement.

Seven families took part in the program the first year. For second-year families, the backyard garden model was adapted to include a garden trainer from within its community rather than a staff member. This change was based on the lack of community cohesion and family isolation noted during the first year of the program. The garden trainers were chosen from the families that had already participated in the program during the first year and were able to train the new families on backyard gardening and support them by visiting throughout the growing season as well as connect them to other needed resources within the community.

Implementation

Ubuntu Urban Farm

In cooperation with the Denver Foundation, Revision International collaborated with The Trust for Public Land, Denver Public Health, Denver Water, and the Rocky Mountain Farmers Union to assist in developing an urban farm for a group of 400 Somali Bantu refugee families who were displaced by a civil war to Kenya for 15 years and then relocated to Denver in 2004. Ubuntu Urban Farm provided culturally appropriate food for the Somali community, produce to be used to develop a cooperative enterprise that provided economic opportunities for the Somali children's education, and produce to be distributed through Revision's Community Supported Agriculture program.

Ubuntu Urban Farm started in 2012. A 2.5-year lease was chosen to ensure that the land would be a productive location for growing. The option for adding on the adjoining other half of the property was considered based on production and interest from additional families. The site for the farm was cleared of trees, weeds, and trash, then leveled, tilled, and composted with 2.5 semi-loads of compost. Heavy equipment and hard labor were used to dig a 450-foot trench for a water line. Valve boxes and back irrigation electrical line were installed to link to the main timer. A contractor was hired to install the main water line. Volunteers from the Somali families were needed to weed about every three days during the early clearing of this land due to the growth rates. Produce grown at Ubuntu Urban Garden went to the families, and then the excess produce was sold for revenue to support educational programs for the children in the Somali families.

The Trust for Public Land helped Revision negotiate the lease contract and the water connection and permit fees in order to start the Ubuntu Urban Farm. Denver Water agreed to reduce water connection fees from $20,000 to about $5,000.

West Colfax Garden

Denver Urban Gardens (DUG) was a technical assistance organization that worked alongside residents to offer essential resources for community gardens. Community organizing around the gardens took place before the community garden was actually built or planted, because the amount of time and focus needed for construction, planting, nourishing, and maintaining the actual gardens could take away from the initial organizing process. Each community garden was coordinated by a volunteer leadership steering committee with leadership roles which included: administration, main contact, membership, and outreach. An average community garden supported by DUG was about 10-15 feet in size and contained between 30-40 plots. All plot fees were the same within a single garden, but each community garden steering committee determines the amount to charge (if any) each plot owner.

Denver Urban Gardens, in partnership with Denver Public Health, Denver Parks and Recreation, and the West Colfax Neighborhood Association, designed a community garden embedded within the West Colfax neighborhood as part of the Lakewood Dry Gulch. The community garden increased food security and allowed opportunities for self-sufficiency for residents of the West Ends Flats, a transitional housing project supported by Colorado Coalition for the Homeless. Additionally, this community garden provided garden-based opportunities for community building and increased the opportunities to consume fresh fruits and vegetables.

There was a policy from the Water Conservation Department which required community gardens to have a dedicated water line. Therefore, connecting to an existing water line was not acceptable. Denver Parks and Recreation was one of Denver Urban Garden's long-time informal partners due to the frequency in which Denver Urban Garden worked with park planning staff responsible for park land where a community group wanted to plant a garden. Because of the high cost of installing a water tap for a dedicated water line to a new garden (i.e., $14,000-$15,000 in Denver), alternative strategies often need to be considered.

Efforts were made to transfer this financial burden away from community groups when using park land. In order to decrease the cost of starting a new community garden in a park space, DUG and the Denver Parks and Recreation Department drafted a Memorandum of Understanding (MOU) to formalize their relationship and stipulate that when Denver Urban Gardens developed and redeveloped a community garden in East or West Denver park land, the Parks and Recreation Department was responsible for the water tap. This would avoid high water access costs and any permit costs that could be assessed. Also, language addressing the use of only potable water in parks where there was or would potentially be a community garden could also be included in the MOU. This policy could open some options in highly populated urban areas where costs of permits and installation of dedicated water lines had been prohibitive. This policy eliminated the $15,000 permit designated for installation of a new water line and allowed gardens to utilize existing water lines.

Population Impact

The number of families participating each year grew substantially from 7 in 2009, to 38 in 2010, to 87 in 2011, and up to167 in 2012, with a waiting list of other families not able to be served. While these numbers

included about a 90% retention rate from the previous year's enrollment, enrollment continued to double each year. As the number of families participating in the program increased, so did the neighborhoods.

> "[Installing] a water tap in the city and county of Denver is right around $14-15,000 so if you want to develop land for a community garden it's a huge chunk of money. … water is huge in a lot of places, in Denver it's huge too. We wanted to tap into existing water lines and Water Conservation, a portion of the Parks Department, said you need to have your own tap. It needs to be a dedicated tap. You can't tap into our line. And this has come up before and we said wait we want to partner...just like any other amenity in the park. We should be considered similar programming." — Staff

In 2012, over 165 families participated in the backyard garden program which potentially served a total of 798 family members who lived in the homes with the backyard gardens. This estimate did not include neighbors or extended family members living outside the home with backyard gardens.

Challenges

Funding for Revision International to pay for operational costs and overhead was its most significant challenge. Funding was raised through individual fundraising and donors as well as through grant support when available.

Efforts were underway to develop a high capacity and functioning urban farm to fulfill the mission of maximizing year-round production through resident employment from the surrounding community. One of the main challenges with the school farm was that the school was not in session during peak harvest time.

The main challenge for starting a community garden in Denver was water access.

Sustainability

Discussion about including plans for zoning and water rates for parks (e.g., urban drainage in gulches) and urban farms (e.g., lower water rates similar to larger farms) were underway in order to establish a framework to reference when advocating individual issues.

With continued support from organizations like Revision International and Denver Urban Gardens, the urban agriculture policies and community gardens will continue to thrive in Southwest Denver neighborhoods.

GROCERY STORES

In partnership with Denver Environmental Health, the Denver Livability Partnership and Denver's HKHC coalition participated to develop policy recommendations to improve availability of affordable nutritious food in underserved regions through the development of new supermarkets and food stores.

Policy, Practice, and Environmental Changes

Access to healthy foods in Southwest Denver increased when two Mi Pueblo Latin Markets opened in areas the community designated as food deserts. Additionally, the stores worked to enroll Supplemental Nutrition Assistance Program (SNAP) through recruitment booths staffed by Hunger Free Colorado.

Source: Transtria LLC

Implementation

Additional efforts were made to increase access by convening HKHC coalition partners Hunger Free Colorado, Councilman Lopez's office, and the owners of Mi Pueblo grocery store together to discuss the possibility of partnering to enroll SNAP recipients at Mi Pueblo food markets. Additional progress toward this goal was made through leveraging Denver Public Health Community Transformation Grant. This grant, awarded in 2011, allowed Denver to resource a staff person at Denver Environmental Health to implement recommendations from the City's Healthy Food Access Taskforce to continue to bring grocery stores to underserved areas (including Southwest Denver). This position added duties to a position within the Office of Economic Development to support grocery store development in underserved areas. In addition, this position and resources contributed to in-depth research on neighborhoods' capacity to support a grocery store as well as highest need areas and potential sites for grocery stores.

Sustainability

The funding and staff position will continue beyond the Denver HKHC grant to strengthen the city's ability to develop grocery stores in the areas of highest need. In addition, Denver Public Health staff serves on the Healthy Food Access committee to ensure this work continues beyond the HKHC grant.

SUSTAINABILITY OF THE PARTNERSHIP AND INITIATIVE

It was challenging to link the project with a common value base in under-resourced communities. For example, some communities are more concerned with finding jobs to be able to feed their family compared to finding ways to increase their physical activity.

Some communities needed to build a leadership base and needed assistance with leadership and building up the capacity before they could take on specific issues. Although there seemed to be some existing champions in the neighborhoods, there may be other individuals who were not able to make formal, structured coalition-type meetings, but needed to be involved in order for the community to be adequately represented.

Attempts were made to go where the residents were in the community by partnering with city council members and different school-based groups. Through the partnership with community-based organizations, Revision International and the Promotora model in particular turned out to be beneficial in engaging residents in planning and decision-making for the urban agriculture and parks work.

Future Funding

There was funding from the Community Transformation Grant for Denver Public Health to continue work on healthy eating and active living. There was also a commitment from the city to continue funding work on healthy eating and active living. Denver Environmental Health were still funded through Colorado Health Foundation grants to continue work on healthy food access efforts. Denver Public Health also had Live Well Colorado funding through March 2014. Efforts continued around active transportation and focused on policy around active transportation. There are no additional funds specifically supporting Denver Public Health. There was commitment form the city to continue focusing work on healthy eating and active living through the Community Health Improvement Plan

REFERENCES

1. Healthy Kids, Healthy Communities National Program Office. *Home and About*, 2009. http://www.healthykidshealthycommunities.org/ Accessed January 13, 2014.

2. U.S. Census Bureau. *2010 Census*. http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Accessed January 13, 2014.

3. U.S. Census Bureau. *2007-2011 American Community Survey*. http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Accessed January 13, 2014.

4. Healthy Kids, Healthy Communities National Program Office. *Denver, CO,* 2009. http://www.healthykidshealthycommunities.org/communities/denver-co Accessed January 13, 2014

APPENDIX A: DENVER HKHC EVALUATION LOGIC MODEL

In the first year of the grant, this evaluation logic model identified short-term, intermediate, and long-term community and system changes for a comprehensive evaluation to demonstrate the impact of the strategies to be implemented in the community. This model provided a basis for the evaluation team to collaborate with the Denver HKHC partnership to understand and prioritize opportunities for the evaluation. Because the logic model was created at the outset, it does not necessarily reflect the four years of activities implemented by the partnership (i.e., the workplans were revised on at least an annual basis).

The healthy eating and active living strategies of Denver HKHC partnership included:

- *Active Transportation (Denver Moves):* Adopting the Denver Complete Streets Policy and revising the Denver Moves plan set standards for future infrastructure improvements that occurred, including: adding 25 miles of bike lanes, subsidizing costs for Denver Housing Authority residents to gain access to the local bike share, securing funding for the design of Denver's first Bike Boulevard, installing crosswalks and a four-way stop, and adopting the Decatur Federal Station Area plan.
- *Parks and Play Spaces:* Partners focused on resurfacing and adding a playground in Weir Gulch and redesigning Cuatro Vientos/Four Winds Park.
- *Urban Agriculture/Farmers' Markets*: Partners supported the creation of one-acre Ubuntu Urban Farm, Lakewood Dry Gulch community garden, and the Valverde community garden, while adopting zoning codes with language on the gardens, greenhouses, and mixed-use developments to protect urban agriculture.
- *Grocery Stores:* Partners supported the opening of two Mi Pueblo Latin Markets in areas designated as food deserts and the acceptance of Supplemental Nutrition Assistance Program (SNAP) benefits at the markets. The owners of Mi Pueblo set up permanent SNAP recruitment and enrollment booths staffed by Hunger Free Colorado. In addition, the city drafted a zoning code with incentives for food retailers to continue to move into food desert areas, although the zoning policy had not yet been adopted.

DENVER, CO
DENVER HEALTH AND HOSPITAL AUTHORITY

Revised, January 20, 2011

Engaging Stakeholders
- Local elected and appointed officials
- City Council
- Transportation
- Development
- Planning
- Health

Engaging Community Residents
- Parents
- Youth
- Community

Coalition, Core Workgroups, and Taskforces
- Capacity building
- Outreach
- Education
- Advocacy

Individual Change*
- HE and AL behavior
- Cultivate leadership

Healthy Eating and Active Living Strategies

Urban Agriculture
- Increase access to healthy foods
- Increase production of healthy locally grown foods

Grocery Store
- Increase access to grocery stores that sell healthy foods
- Decrease food deserts

Weir Gulch
- Increase and improve ped/bike infrastructure
  - Safety
  - Connectivity
  - Open space

Parks and Recreation Revenue
- Increase funds used for Parks and Recreation
- Increase access to Parks and Recreation facilities

Denver Moves Plan
- Increase and improve ped/bike infrastructure
  - Sidewalks
  - Bike lanes
  - Signage
  - Crossing aids

Parks and Recreation
- Increase utilization of park
- Increase opportunities for physical activity

Policy & Environmental Change

Healthy Eating
- City of Denver adopt land acquisition zoning policy for urban agriculture
- Development of property for urban agriculture
- Policy adopted to impact food deserts (grocery store)
- Develop grocery store in South West neighborhood

Active Living
- Revenue initiative developed to use funds for Parks and Recreation
- Improve conditions of parks, trails facilities for recreation
- Policy to insert connectivity language in Denver Moves Plan
- Improved pedestrian/bike infrastructure (sidewalks, bike lanes, street crossing aids, signage)
- Improvements made to Weir Gulch system
- Design recommendations for Weir Gulch improvements
- Improve conditions of 3800 Alameda park land

Community and Systems Change*
- Resident perceptions of policy and environmental changes
- Resident transportation choices
- Resident eating behaviors
- Resident physical activity behaviors

*Not responsibility of Community Partner to measure.

APPENDIX B: PARTNERSHIP AND COMMUNITY CAPACITY SURVEY RESULTS

To enhance understanding of the capacity of each community partnership, an online survey was conducted with project staff and key partners involved with Denver Healthy Kids, Healthy Communities during the final year of the grant. Partnership capacity involves the ability of communities to identify, mobilize, and address social and public health problems.[1-3]

Methods

Modeled after earlier work from the Prevention Research Centers and the Evaluation of Active Living by Design,[4] a 82-item partnership capacity survey solicited perspectives of the members of the Denver Healthy Kids, Healthy Communities partnership on the structure and function of the partnership. The survey questions assisted evaluators in identifying characteristics of the partnership, its leadership, and its relationship to the broader community.

Questions addressed respondents' understanding of Denver Healthy Kids, Healthy Communities in the following areas: partnership capacity and functioning, purpose of partnership, leadership, partnership structure, relationship with partners, partner capacity, political influence of partnership, and perceptions of community members. Participants completed the survey online and rated each item using a 4-point Likert-type scale (strongly agree to strongly disagree). Responses were used to reflect partnership structure (e.g., new partners, committees) and function (e.g., processes for decision making, leadership in the community). The partnership survey topics included the following: the partnership's goals are clearly defıned, partners have input into decisions made by the partnership, the leadership thinks it is important to involve the community, the partnership has access to enough space to conduct daily tasks, and the partnership faces opposition in the community it serves. The survey was open between September 2013 and December 2013 and was translated into Spanish to increase respondent participation in predominantly Hispanic/Latino communities.

To assess validity of the survey, evaluators used SPSS to perform factor analysis, using principal component analysis with Varimax with Kaiser Normalization (Eigenvalue >1). Evaluators identified 15 components or factors with a range of 1-11 items loading onto each factor, using a value of 0.4 as a minimum threshold for factor loadings for each latent construct (i.e., component or factor) in the rotated component matrix.

Survey data were imported into a database, where items were queried and grouped into the constructs identified through factor analysis. Responses to statements within each construct were summarized using weighted averages. Evaluators excluded sites with ten or fewer respondents from individual site analyses but included them in the final cross-site analysis.

Findings

Eight of the project staff and key partners involved with Denver Healthy Kids, Healthy Communities completed the survey. See Partnership and Community Capacity Survey Results starting on page 27.

References

1. Goodman RM, Speers MA, McLeroy K, et al. Identifying and defining the dimensions of community capacity to provide a basis for measurement. Health Educ Behav. Jun 1998;25(3):258-278.
2. Israel BA, Schulz AJ, Parker EA, Becker AB. Review of community-based research: assessing partnership approaches to improve public health. Annu Rev Public Health. 1998;19:173-202.
3. Roussos ST, Fawcett SB. A review of collaborative partnerships as a strategy for improving community health. Annu Rev Public Health. 2000;21:369-402.
4. Baker E, Motton F. Is there a relationship between capacity and coalition activity: The road we've traveled. American Public Health Association 131st Annual Meeting. San Francisco, CA; 2003.

APPENDIX B: PARTNERSHIP AND COMMUNITY CAPACITY SURVEY RESULTS

Partnership and Community Capacity Survey

Respondent Summary

Community Partnership

Denver

Respondents (n= 8)

Respondent Characteristics

Gender

Female	7
Male	1
No response	0

Age Range

18-25	0
26-45	7
46-65	1
66+	0
No response	0

Indentified Race/Ethnicity

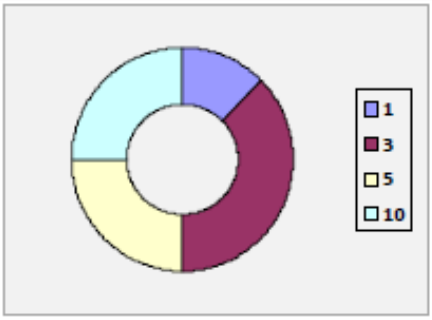
American Indian or Alaskan Native	1	Hispanic or Latino	2
Asian	0	Not Hispanic or Latino	0
White	6	Don't know/ Unsure ethnicity	0
African American/ Black	0	Refused to identify ethnicity	0
Pacific Islander/ Native Hawaiian	0	Other ethnicity	0

Identified Role

Community Partnership Lead	1
Community Partnership Partner	4
Community Leader	1
Community Member	0
Public Official	2
Other role	1

Type of Affiliated Organization

Faith- or Community Based Organization	1	12.5%	(1)
School (district, elementary, middle, high)	0	0.0%	(2)
Local Government Agency (city, county)	3	37.5%	(3)
University or Research/Evaluation Organization	0	0.0%	(4)
Neighborhood Organization	2	25.0%	(5)
Advocacy Organization	0	0.0%	(6)
Health Care Organization	0	0.0%	(7)
Child Care or Afterschool Organization	0	0.0%	(8)
Other	2	25.0%	(10)
No response	0	0.0%	(999)



Partnership and Community Capacity Data

Provision of required space and equipment

Participants provided level of agreement to statements indicating the community partnership provided adequate space, equipment, and supplies to conduct business and meetings.

Strongly agree	23.61%	Strongly disagree	12.50%
Agree	23.61%	I don't know	34.72%
Disagree	4.17%	No response	1.39%

Partner skills and communication

Participants provided level of agreement to statements supporting partner skills and ability to communicate with and engage multiple types of people (e.g., public officials, community leaders).

Strongly agree	32.95%	Strongly disagree	0.00%
Agree	47.73%	I don't know	12.50%
Disagree	6.82%	No response	0.00%

APPENDIX B: PARTNERSHIP AND COMMUNITY CAPACITY SURVEY RESULTS

Community Partnership

Community and community members

Participants provided level of agreement to statements suggesting the communities are good places to live, and that community members are helpful, can be trusted, and share the same goals or values.

Strongly agree	28.41%	Strongly disagree	0.00%
Agree	43.18%	I don't know	22.73%
Disagree	5.68%	No response	0.00%

Partner and community involvement

Participants provided level of agreement to statements indicating partners and the community were actively involved in partnership activities, meetings, and decisions.

Strongly agree	32.50%	Strongly disagree	10.00%
Agree	32.50%	I don't know	20.00%
Disagree	5.00%	No response	0.00%

Partner and partnership development

Participants provided level of agreement to statements suggesting the partnership and its partners seek ways learn, develop, and enhance sustainability.

Strongly agree	25.00%	Strongly disagree	2.50%
Agree	40.00%	I don't know	25.00%
Disagree	7.50%	No response	0.00%

Partnership structure, organization, and goals

Participants provided level of agreement to statements suggesting partnership has processes in place related to structure, meeting organization, and goals.

Strongly agree	27.08%	Strongly disagree	4.17%
Agree	20.83%	I don't know	31.25%
Disagree	16.67%	No response	0.00%

Relationship between partners and leadership

Participants provided level of agreement to statements indicating the leadership and partners trust and support each other.

Strongly agree	37.50%	Strongly disagree	0.00%
Agree	34.38%	I don't know	12.50%
Disagree	15.63%	No response	0.00%

Community members intervene

Participants provided level of agreement to statements indicating that community members can be counted on intervene in instances where someone is disrespectful, disruptive, or harmful to another community member.

Strongly agree	25.00%	Strongly disagree	16.67%
Agree	33.33%	I don't know	16.67%
Disagree	8.33%	No response	0.00%

Leadership motivation

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APPENDIX B: PARTNERSHIP AND COMMUNITY CAPACITY SURVEY RESULTS

Community Partnership

Participants provided level of agreement to statements suggesting the leadership is motivated to help others, work with diverse groups, shows compassion, and follows through.

Strongly agree	46.88%	Strongly disagree	0.00%
Agree	28.13%	I don't know	12.50%
Disagree	12.50%	No response	0.00%

Community member and partner participation

Participants provided level of agreement to statements indicating that community members and partners have opportunities to serve in leadership roles and participate in group decision-making.

Strongly agree	25.00%	Strongly disagree	4.17%
Agree	29.17%	I don't know	33.33%
Disagree	8.33%	No response	0.00%

Involvement in other communities

Participants provided level of agreement to statements suggesting leadership and partners are involved in other communities and various community groups, and help communities work together.

Strongly agree	28.13%	Strongly disagree	0.00%
Agree	50.00%	I don't know	15.63%
Disagree	6.25%	No response	0.00%

Community member willingness to assist

Participants provided level of agreement to statements suggesting most community members help neighbors and solve community problems. It also suggested some community members may take advantage of others.

Strongly agree	34.38%	Strongly disagree	0.00%
Agree	43.75%	I don't know	18.75%
Disagree	3.13%	No response	0.00%

Core leadership and leadership skills

Participants provided level of agreement to statements suggesting the community partnership has a core leadership group organizing efforts, and that leaders have the skills to help the partnership achieve its goals.

Strongly agree	37.50%	Strongly disagree	6.25%
Agree	37.50%	I don't know	12.50%
Disagree	6.25%	No response	0.00%

Partner motivation

Participants provided level of agreement to statements indicating that partners won't give up in their efforts to create change and increase sense of community through the partnership.

Strongly agree	25.00%	Strongly disagree	0.00%
Agree	45.83%	I don't know	20.83%
Disagree	8.33%	No response	0.00%

Visibility of leadership

Participants provided level of agreement to statements suggesting the leadership is known in the community and works with public officials.

Strongly agree	31.25%	Strongly disagree	0.00%
Agree	50.00%	I don't know	12.50%
Disagree	6.25%	No response	0.00%

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APPENDIX B: PARTNERSHIP AND COMMUNITY CAPACITY SURVEY RESULTS

Community Partnership

Leadership lives in the community

Participants provided level of agreement to a statement indicating that at least one member of the leadership resides within the community.

Strongly agree	25.00%	Strongly disagree	0.00%
Agree	25.00%	I don't know	37.50%
Disagree	12.50%	No response	0.00%

Leadership has a respected role in the community

Participants provided level of agreement to a statement that suggests at least one member of the leadership team has a respected role in the community.

Strongly agree	37.50%	Strongly disagree	0.00%
Agree	25.00%	I don't know	37.50%
Disagree	0.00%	No response	0.00%

Community partnership initiatives are known

Participants provided level of agreement to a statement suggesting that community members are aware of the partnership's initiatives and activities.

Strongly agree	37.50%	Strongly disagree	0.00%
Agree	25.00%	I don't know	12.50%
Disagree	25.00%	No response	0.00%

Division of resources

Participants provided level of agreement to a statements suggesting that resources are equally divided among different community groups (e.g., racial/ethnic, lower income).

Strongly agree	25.00%	Strongly disagree	0.00%
Agree	37.50%	I don't know	25.00%
Disagree	12.50%	No response	0.00%

APPENDIX C: DENVER HEALTHY KIDS, HEALTHY COMMUNITIES PARTNER LIST

Type	Partner Name
Business/Industry/Commercial/Hospitals	Denver B-cycle
	Denver Health and Hospital Authority
	Denver Water
	Kaiser Permanente
	Mi Pueblo Markets
	Progressive Urban Management Associates
	Denver Public Health (Lead Agency)
Civic Organizations	The Trust for Public Land
College/University	University of Colorado Denver's Learning Landscapes Program
Elected/Appointed Officials	City Council
	Mayor
Foundations	Colorado Health Foundation
	Great Outdoors Colorado
	LiveWell Colorado
	The Denver Foundation
Government Organizations	Colorado Department of Human Services
	Denver Community Planning and Development
	Denver Environmental Health
	Denver Food Access Taskforce
	Denver Livability Partnership
	Denver Parks and Recreation
	Denver Public Works
	Denver Sustainable Food Policy Council
	Green Print Denver
	Mayor's Bicycle Advisory Committee
	Mayor's Office of Education and Children
	Office of Economic Development
	USDA Food & Nutrition Services
Other Community-Based Organizations	Denver Housing Authority
	Denver Urban Gardens
	Feed Denver
	Groundwork Denver
	Morrison Road Business Association of Denver
	Neighborhood Associations
	Parks and Recreation Coalition
	Revision International
	Somali Bantu Development Council of Denver
Policy/Advocacy Organizations	BikeDenver
	Convergence Partnership
	Hunger Free CO
	Rocky Mountain Farmers Union
	Transit Alliance

APPENDIX D: SOURCES AND AMOUNTS OF FUNDING LEVERAGED

Sources of Revenue

Community Partnership: Denver

Resource source		Amount	Status	
Business	**Year**			
Matching funds				
	2014		Annual total	$110,000.00
		$110,000.00	*Accrued*	
Sum of revenue generated by resource source		$110,000.00		
Individual/private donor	**Year**			
Other				
	2011		Annual total	$10.00
		$10.00	*Accrued*	
Sum of revenue generated by resource source		$10.00		
Local government	**Year**			
HKHC funds				
	2012		Annual total	$6,638.00
		$6,638.00	*Accrued*	
Matching funds				
	2010		Annual total	$41,986.00
		$4,000.00	*Accrued*	
		$2,320.00	*Accrued*	
		$2,160.00	*Accrued*	
		$4,080.00	*Accrued*	
		$5,000.00	*Accrued*	
		$6,000.00	*Accrued*	
		$4,000.00	*Accrued*	
		$14,426.00	*Accrued*	
	2011		Annual total	$40,760.00
		$4,000.00	*Accrued*	
		$4,000.00	*Accrued*	
		$6,000.00	*Accrued*	
		$4,080.00	*Approved*	
		$2,160.00	*Approved*	
		$13,200.00	*Accrued*	

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APPENDIX D: SOURCES AND AMOUNTS OF FUNDING LEVERAGED

Community Partnership	Denver			
Resource source		Amount	Status	
		$5,000.00	*Accrued*	
		$2,320.00	*Accrued*	
	2012		Annual total	$26,080.00
		$1,000.00	*Accrued*	
		$2,000.00	*Accrued*	
		$4,000.00	*Accrued*	
		$6,000.00	*Accrued*	
		$4,000.00	*Accrued*	
		$5,000.00	*Accrued*	
		$4,080.00	*Accrued*	
	2014		Annual total	$843.00
		$843.00	*Accrued*	
Sum of revenue generated by resource source	$116,307.00			
State government	Year			
Matching funds				
	2011		Annual total	$4,000.00
		$4,000.00	*Accrued*	
Sum of revenue generated by resource source	$4,000.00			
National government	Year			
Matching funds				
	2010		Annual total	$20,550.00
		$20,550.00	*Accrued*	
	2011		Annual total	$21,150.00
		$21,150.00	*Accrued*	
	2012		Annual total	$120,000.00
		$120,000.00	*Accrued*	
	2014		Annual total	$420,000.00
		$120,000.00	*Accrued*	
		$300,000.00	*Accrued*	
Other				
	2010		Annual total	$40,000.00
		$40,000.00	*Accrued*	

APPENDIX D: SOURCES AND AMOUNTS OF FUNDING LEVERAGED

Community Partnership	Denver			
Resource source		Amount	Status	
Sum of revenue generated by resource source		$621,700.00		
Foundation	Year			
HKHC funds				
	2009		Annual total	$79,661.00
		$65,880.00	*Accrued*	
		$7,242.00	*Accrued*	
		$6,539.00	*Accrued*	
	2011		Annual total	$103,715.00
		$75,525.00	*Accrued*	
		$4,318.00	*Accrued*	
		$4,782.00	*Accrued*	
		$4,951.00	*Accrued*	
		$14,139.00	*Accrued*	
	2013		Annual total	$83,951.00
		$7,867.00	*Accrued*	
		$4,498.00	*Accrued*	
		$47,868.00	*Accrued*	
		$21,272.00	*Accrued*	
		$2,446.00	*Accrued*	
	2014		Annual total	$91,015.00
		$3,562.00	*Accrued*	
		$52,914.00	*Accrued*	
		$5,074.00	*Accrued*	
		$29,465.00	*Accrued*	
Matching funds				
	2010		Annual total	$3,284.00
		$3,284.00	*Accrued*	
	2011		Annual total	$3,284.00
		$3,284.00	*Accrued*	
	2012		Annual total	$353,284.00
		$350,000.00	*Accrued*	
		$3,284.00	*Accrued*	

APPENDIX D: SOURCES AND AMOUNTS OF FUNDING LEVERAGED

Community Partnership	Denver		
Resource source		Amount	Status
Sum of revenue generated by resource source		$718,194.00	
Non-profit organization	Year		
Matching funds			
	2010		Annual total $102,615.00
		$1,000.00	*Accrued*
		$77,455.00	*Accrued*
		$1,000.00	*Accrued*
		$3,000.00	*Accrued*
		$10,000.00	*Accrued*
		$7,660.00	*Accrued*
		$2,500.00	*Accrued*
	2011		Annual total $83,329.00
		$3,000.00	*Accrued*
		$500.00	*Accrued*
		$7,660.00	*Accrued*
		$1,000.00	*Accrued*
		$1,000.00	*Accrued*
		$2,500.00	*Accrued*
		$21,000.00	*Accrued*
		$36,669.00	*Accrued*
		$10,000.00	*Accrued*
	2012		Annual total $82,730.00
		$4,000.00	*Accrued*
		$500.00	*Accrued*
		$500.00	*Accrued*
		$1,000.00	*Accrued*
		$1,000.00	*Accrued*
		$36,730.00	*Accrued*
		$500.00	*Accrued*
		$2,500.00	*Accrued*
		$3,000.00	*Accrued*
		$500.00	*Accrued*

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APPENDIX D: SOURCES AND AMOUNTS OF FUNDING LEVERAGED

Community Partnership	Denver			
Resource source		Amount	Status	
		$32,500.00	*Accrued*	
	Other			
	2011		Annual total	$900.00
		$900.00	*Accrued*	
Sum of revenue generated by resource source		$269,574.00		
School	Year			
	Matching funds			
	2010		Annual total	$10,000.00
		$10,000.00	*Accrued*	
	2011		Annual total	$10,000.00
		$10,000.00	*Accrued*	
Sum of revenue generated by resource source		$20,000.00		
Other	Year			
	Other			
	2010		Annual total	$41,700.00
		$41,700.00	*Accrued*	
Sum of revenue generated by resource source		$41,700.00		
Grand Total				$1,901,485.00

APPENDIX E: PARKS AND PLAY SPACES ENHANCED EVALUATION REPORT

Denver
Healthy Kids, Healthy Communities

Park Direct Observation

Summary Report

Prepared by Transtria LLC

Table of Contents

Background

Healthy Kids, Healthy Communities (HKHC) is a national program of the Robert Wood Johnson Foundation (RWJF) whose primary goal is to implement healthy eating and active living policy, system, and environmental change initiatives that can support healthier communities for children and families across the United States. Healthy Kids, Healthy Communities places special emphasis on reaching children who are at highest risk for obesity on the basis of race/ethnicity, income, and/or geographic location.

Denver, Colorado was selected as one of 49 communities to participate in HKHC, and Denver Public Health is the lead agency for their community partnership, Denver Health Kids, Healthy Communities. Denver has chosen to focus its work on urban agriculture, grocery stores, parks and recreation, complete streets, and comprehensive planning. Transtria LLC, a public health evaluation and research consulting firm located in St. Louis, Missouri, is funded by the Robert Wood Johnson Foundation to lead the evaluation and dissemination activities from April 2010 to March 2014. For more information about the evaluation, please visit www.transtria.com.

In order to better understand the impact of their work on parks and play spaces, partnership representatives chose to participate in the enhanced evaluation data collection activities. This supplementary evaluation focuses on the six cross-site HKHC strategies, including: parks and play spaces, active transportation, farmers' markets, corner stores, physical activity standards in childcare settings, and nutrition standards in childcare settings. Communities use two main methods as part of the enhanced evaluation, direct observation and environmental audits. Denver chose to collect data on parks and play spaces using the pre/post direct observation method.

Methods

The parks and play spaces direct observation tool was adapted from the System for Observing Play and Leisure Activity (SOPLAY) and System for Observing Play and Recreation in Communities (SOPARC) tools, protocols, and operational definitions. Direct observation is a method used to assess individuals' behaviors in their natural setting. An Evaluation Officer from Transtria LLC trained representatives of Denver's community partnership on proper data collection methods using the tool.

Data collection occurred on three days between June 29, 2013 and July 2, 2013 at two park locations: Weir Gulch and Lakewood Gulch. All observations were collected between 7:30 AM and 7:30 PM. There were a total of eight different data collectors.

Observers collected data for 34 to 159 minutes per park per day. For the duration of each observation period, observers scanned the play space for one minute. Data collectors took a break for one minute, and then repeated this process for a predetermined amount of time (e.g., 30 minutes) by alternating one-minute scanning periods and one-minute recording periods. Each observation represents an individual's activity level in the area at the specified time. Because individuals may have exited and re-entered the area during observation periods, the individuals observed in each time period were not the same. This method allowed observers to capture overall changes in activity level as time lapsed, but it did not allow observers to record individual behavior changes.

During the scan, the observer completed the observation tool by tallying children in the designated area by age group (i.e., preschool = 3-5 years; elementary school = 6-10 years; middle school = 11-14 years; high school = 15+ years) and activity level (i.e., sedentary, moderate, or very active behaviors).

- **Sedentary** behaviors are defined as activities in which children are not moving (e.g., standing, sitting, playing board games).
- **Moderate** intensity behaviors require more movement but no strenuous activity (e.g., walking, biking slowly).
- **Very active** behaviors show evidence of increased heart rate and inhalation rate (e.g., running, biking vigorously, playing basketball).

Observers also reported the activity codes for the children in the designated area, including:

No Identifiable Activity	Aerobics	Baseball/Softball	Basketball
Dance	Football	Gymnastics	Martial Arts
Racquet Sports	Soccer	Swimming	Weight Training
Playground Games	Walking	Jogging/Running	None of the Above
		Volleyball	Biking

The activity code “No Identifiable Activity” was used to indicate no movement. The activity code “None of the Above” was used when an individual was engaging in an activity not included in the other activity codes.

In addition to recording individuals’ activity levels, observers created maps of the parks. The maps included a form for the setting, location, type of park area, condition of the area, any permanent modifications (the specific permanent alterations present that assist children in participating in physical activity such as lines painted on courts or basketball poles and nets; this does not include temporary improvements such as chalk lines and portable nets.), the presence of overlap modifications (e.g., the space has multiple improvements that overlap but cannot be used simultaneously such as a space that is used for both volleyball and basketball), and the surface type (e.g., gravel, grass).

One Transtria staff member entered the data and a second Transtria staff member conducted validity checks on 10% of observations (i.e., every tenth data point) to ensure accuracy and validity of the data. Of the 10% checked, 3 errors were found among the 193 observations (98.5% correct).

Results

The weather at parks during data collection activities was generally fair as the temperature ranged from 59°F to 82°F. Data was collected during a total of 193 one-minute time intervals or observation periods throughout the two parks. Data was collected for a total of 34 observation periods Weir Gulch and 159 observation periods in Lakewood Gulch.

For the 193 observation periods, there were a total of 476 activity counts recorded by observers. The activity counts reflect activity levels at a particular moment in time as opposed to unique individuals observed. A person counted during the first minute of scanning is also counted during the fifth minute of scanning, if that person is still in the area. It is likely that the unique number of individuals observed in the area is a small fraction of the number of activity counts recorded for each site.

In order to better compare the data collected in Weir Gulch and Lakewood Gulch, the rate of activity (activity counts per hour) was calculated for each park.

$$\frac{\textbf{Number of activity counts}}{\textbf{Total number of observation periods}} \quad \textbf{X 60 (minutes per hour)}$$

Weir Gulch

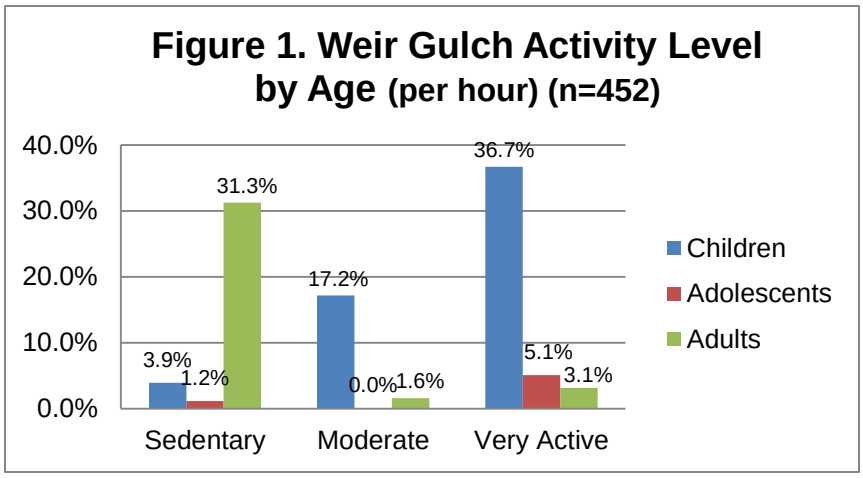
A total of 452 activity counts were recorded in Weir Gulch. As seen In Table 1, over half (57.8%) of the observed activity in Weir Gulch was among children. Activity among adolescents (6.3%) made up only a small proportion of all activity observed, and adults were observed just over a third of the time (35.9%).

Table 1. Weir Gulch - Activity Level by Age (per hour) (n=452)

	Sedentary	Moderate	Very Active	Total
Children	3.9% (17.6)	17.2% (77.6)	36.7% (165.9)	57.8% (261.2)
Adolescents	1.2% (5.3)	0.0% (0.0)	5.1% (22.9)	6.3% (28.2)
Adults	31.3% (141.2)	1.6% (7.1)	3.1% (14.1)	35.9% (162.4)
Total	36.3% (164.1)	18.8% (84.7)	44.9% (202.9)	

Activity levels by age

Overall, very active behaviors were most commonly observed in Weir Gulch (44.9%), followed by sedentary (36.3%) and then moderate behaviors (18.8%). Shown in Figure 1, adults were, by far, the most likely age group to be sedentary (31.3%), while children were, again by far, most likely to be participating in very active (36.7%) and moderate behaviors (17.2%). Adults were least likely to be observed participating in moderately active (1.6%) or very active behaviors (3.1%). Adolescents were observed being either very active (5.1%) or sedentary (1.2%). No adolescents were observed participating in moderate activity.



Types of activities by age

Data collectors in Weir Gulch recorded types of activities they observed using activity codes. Table 2 describes the activity codes seen in Weir Gulch during all 34 observation periods. The activity codes jogging/running, no identifiable activity, and none of the above were observed in all three age groups. Children were observed participating in the widest variety of activities compared to adolescents and adults. Aerobics, dance, football, and soccer were only observed in children, while adults were the only age group to be seen biking

.

Table 2. Weir Gulch Activity Codes Observed by Age (n=452)

	Children	Adolescents	Adults
Aerobics	X		
Basketball	X	X	
Dance	X		
Football	X		
Soccer	X		
Walking	X		X
Jogging/Running	X	X	X
Biking			X
No identifiable activity	X	X	X
None of the above	X	X	X

Key Takeaways

- Adults (aged 19 and over) were the most sedentary (31.3%) of all ages and least likely to be engaged in very active behavior (3.1%).
- Adolescents (aged 13-18) were observed the least amount of all age groups and were engaged in either very active (5.1%) or sedentary (1.2%) behavior.
- Children (aged 3-12) were the greatest share of observations across all three age groups to be engaged in very active (36.7%) and moderate level activity (17.2%).

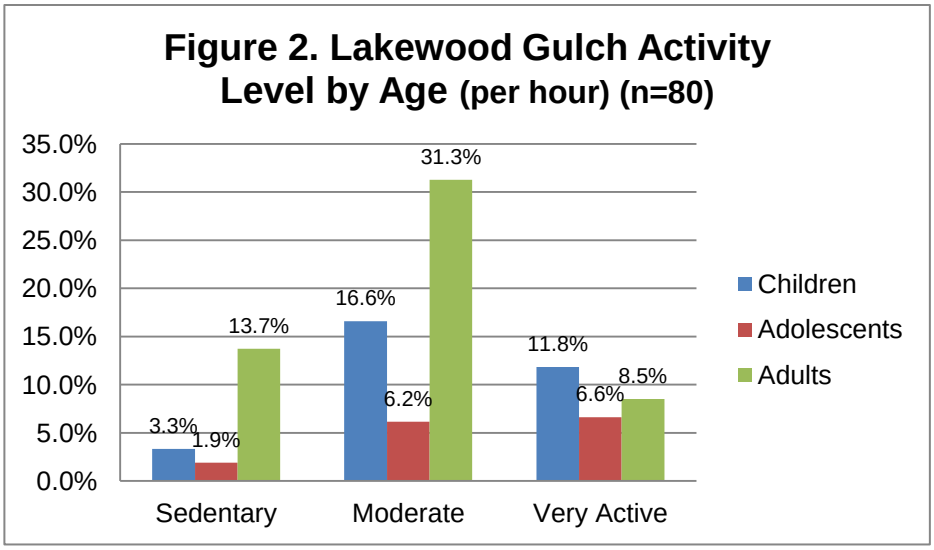
Lakewood Gulch

A total of 80 activity counts were recorded in Lakewood Gulch. Shown in Table 3, over half (53.6%) of activity observed in Lakewood Gulch was among adults, while approximately one-third (31.8%) was among children. Adolescents were observed least often (14.7%). Of all activity observed in Lakewood Gulch, over half (54%) was moderate, and just over one-quarter (27%) was very active. Almost one-fifth (19%) of activity was sedentary.

Table 3. Lakewood Gulch - Activity Level by Age (per hour) (n=80)				
	Sedentary	**Moderate**	**Very Active**	**Total**
Children	3.3% (2.6)	16.6% (13.2)	11.8% (9.4)	31.8% (25.3)
Adolescents	1.9% (1.5)	6.2% (4.9)	6.6% (5.3)	14.7% (11.7)
Adults	13.7% (10.9)	31.3% (24.9)	8.5% (6.8)	53.6% (42.6)
Total	19.0% (15.1)	54.0% (43.0)	27.0% (21.5)	

Activity levels by age

Demonstrated in Figure 2, adults were the most likely age group to be observed participating in both moderately (31.3%) and sedentary (13.7%) behaviors in Lakewood Gulch. Children were the most likely group to be participating in very active behavior (11.8%). Among children only 3.3% of activity was sedentary. Similarly, one-fifth of children observed were moderately active.



Types of activities by age

The activity codes identified during observation periods in Lakewood Gulch are displayed in Table 4. The activity codes walking, biking, no identifiable activity, and none of the above were observed in all age groups. Children were the only age group observed participating in other playground games. While both adults and children were seen jogging/running, adolescents were not.

Table 4. Lakewood Gulch Activity Codes by Age (n=80)			
	Children	**Adolescents**	**Adults**
Other playground games	X		
Walking	X	X	X
Jogging/Running	X		X
Biking	X	X	X
No identifiable activity	X	X	X
None of the above	X	X	X

Key Takeaways

- Adults (aged 19 and over) were the most sedentary (13.7%) and moderately active (31.3%) of all ages.
- Adolescents (aged 13-18) were observed the least amount of all age groups and were engaged in the least share of all three levels of activity: sedentary (1.9%), moderate (6.2%), and very active (6.6%).
- Children (aged 3-12) were the greatest share of observations across all three age groups to be engaged in very active activity (11.8%).

Comparison

Activity level observations

When comparing the two parks (Table 5), very active behavior was more commonly observed at Weir Gulch (44.9%) than at Lakewood Gulch (19.0%). Sedentary behavior was also more common at Weir Gulch (36.3%) compared to Lakewood Gulch (27.0%). However, moderate activity was almost three times higher in Lakewood Gulch (54.0%) than in Weir Gulch (18.8%).

Table 5. Overall Activity Level by Park (per hour)		
	Weir Gulch (n=452)	**Lakewood Gulch (n=80)**
Sedentary	36.3% (164.1)	19.0% (15.1)
Moderate	18.8% (84.7)	54.0% (43.0)
Very Active	44.9% (202.9)	27.0% (21.5)

Table 6 shows the activity counts per hour in Weir Gulch and Lakewood Gulch. A total of 451.8 activity counts per hour were recorded in Weir Gulch. By contrast, only 79.6 activity counts per hour were recorded in Lakewood Gulch. The activity counts per hour were higher across all age groups and activity levels, except for moderately active adolescents, in Weir Gulch compared to Lakewood Gulch. There was a very large difference in the number of activity counts per hour among very active children between the two parks with 165.9 very active children per hour in Weir Gulch and only 9.4 in Lakewood Gulch.

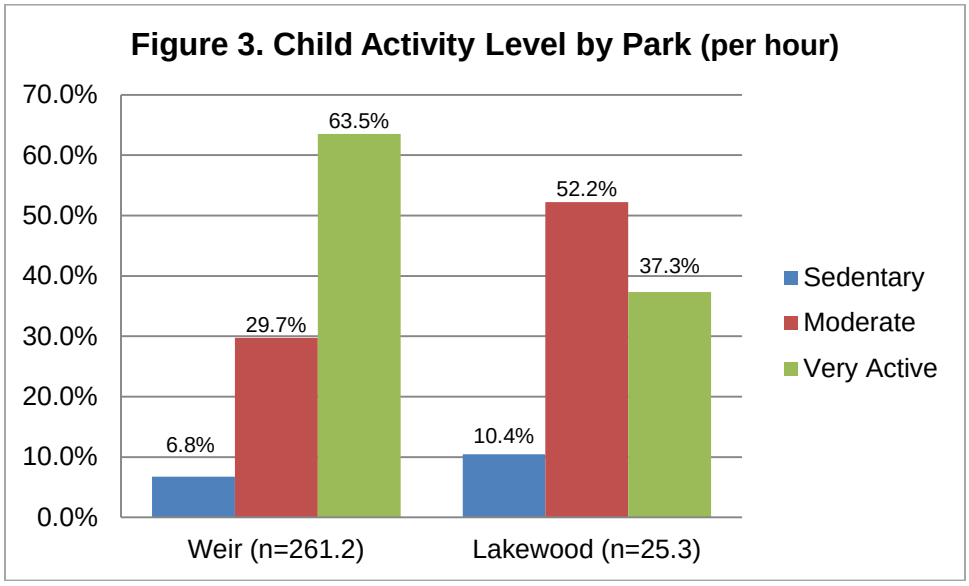
Table 6. Activity Level by Age (per hour)				
Weir Gulch (n=452)				
	Sedentary	**Moderate**	**Very Active**	**Total**
Children	17.7	77.7	165.9	261.2
Adolescents	5.3	0.0	22.9	28.2
Adults	141.2	7.1	14.1	162.4
Total	164.1	84.7	202.9	451.8
Lakewood Gulch (n=80)				
	Sedentary	**Moderate**	**Very Active**	**Total**
Children	2.6	13.2	9.4	25.3
Adolescents	1.5	4.9	5.3	11.7
Adults	10.9	24.9	6.8	42.6
Total	15.1	43.0	21.5	79.6

Key Takeaways

- There were more than five times as many activity counts recorded in Weir Gulch (452) compared to Lakewood Gulch (80).
- Sedentary (36.3%) and very active (44.9%) behaviors were observed nearly twice as much per hour in Weir Gulch than in Lakewood Gulch (19.0% and 27.0%, respectively).
- Moderate activity was observed twice as much per hour in Lakewood Gulch (54.0%) compared to Weir Gulch (18.8%).

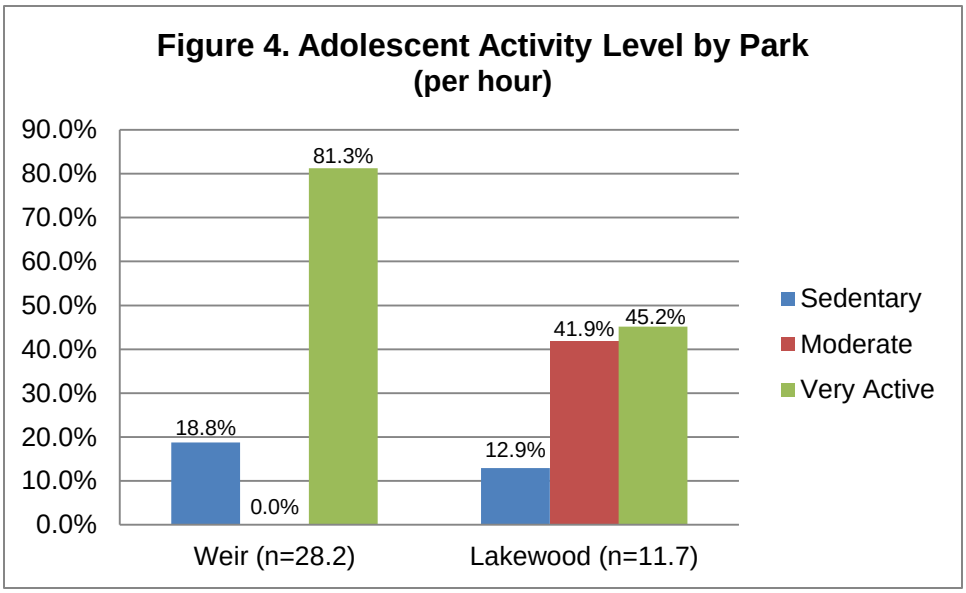
Activity level by park: Children

Among children in Weir Gulch and Lakewood Gulch (see Figure 3), very active behavior was observed more frequently in Weir Gulch (63.5%) compared to Lakewood Gulch (37.3%). However, in Lakewood Gulch moderate activity among children was more common (52.2%) compared to that observed in Weir Gulch (29.7%). The lowest activity level observed among children was sedentary across both parks: Weir Gulch (6.8%) and Lakewood Gulch (10.4%).



Activity level by park: Adolescents

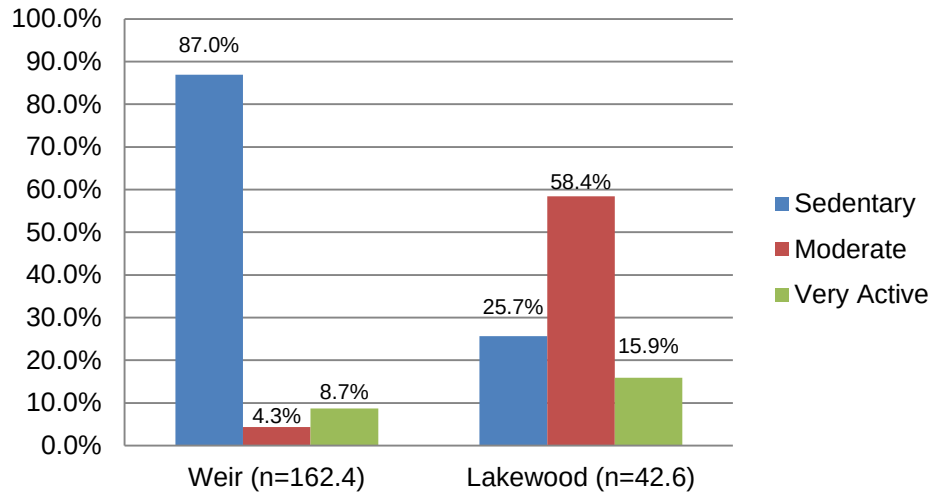
Shown in Figure 4, 81.3% of adolescent activity observed in Weir Gulch was very active, compared to Lakewood Gulch where only 45.2% of adolescent activity was very active. There were no adolescents observed participating in moderate activity in Weir Gulch, whereas 41.9% of adolescent activity observed in Lakewood Gulch was moderate. Sedentary behavior among adolescents was slightly less in Lakewood (12.9%) compared to Weir Gulch (18.8%).



Activity level by park: Adults

Displayed in Figure 5, the large majority of activity observed among adults in Weir Gulch was sedentary (87.0%), whereas the majority of adult activity in Lakewood Gulch was moderate (58.4%). In Weir Gulch, very active behavior (8.7%) and moderate behavior (4.3%) were observed in much smaller proportions compared to sedentary behavior. In contrast, only 25.7% of activity observed in Lakewood Gulch was sedentary. Almost twice as much of the activity among adults (15.9%) in Lakewood Gulch was very active compared to Weir Gulch.

Figure 5. Adult Activity Level by Park (per hour)



Key Takeaways

- Children were least likely to be observed in sedentary activities in both parks (6.8% Weir and 10.4% Lakewood). More children were observed in very active types of activity in Weir Gulch (63.5%), whereas more children were observed in moderate types of activity in Lakewood Gulch (52.2%).
- Adolescents were most commonly participating in very active behavior in Weir Gulch (81.3%) and Lakewood Gulch (45.2%) compared to moderate or sedentary behaviors.
- Adults were least sedentary in Lakewood Gulch (25.7%), whereas the majority of adults (87%) were observed in sedentary activities in Weir Gulch. Although adults were not seen in a large percent of very active behaviors in either park, over half (58.4%) were seen in moderate activities in Lakewood Gulch.

Appendix A: Parks and Play Spaces Direct Observation Tool

Parks and Play Spaces Direct Observation Tool

Park or Play Space Name/Address: _____ Observer Name: _____

Community Partnership: _____ Weather Condition: _____ Date: _____

Start Time	Play Space	Children 3-12 (# of children)				Adolescent 13-18 (# of youth)				Adults 19+ (# of adults)			
		Sedentary	Moderate	Very Active	Activity Code	Sedentary	Moderate	Very Active	Activity Code	Sedentary	Moderate	Very Active	Activity Code
__:__													
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Activity Codes: **0** = No identifiable activity (i.e. not moving); **1**= Aerobics; **2** = Baseball/Softball; **3**= Basketball; **4** = Dance; **5** = Football; **6** = Gymnastics; **7** = Martial Arts; **8** = Racquet sports; **9** = Soccer; **10** = Swimming; **11**= Volleyball; **12** = Weight training; **13** = Other playground games; **14** = Walking; **15** = Jogging/Running; **16** = None of the above; **17** = Biking

Parks and Play Spaces Direct Observation

Introduction

This tool and protocol were developed by the evaluation team from Transtria LLC (Laura Brennan, PhD, MPH, Principal Investigator; Allison Kemner, MPH; Tammy Behlmann, MPH; Jessica Stachecki, MSW, MBA; Carl Filler, MSW) and Washington University Institute for Public Health (Ross Brownson, PhD, Co-Principal Investigator; Christy Hoehner, PhD, MSPH) as well as feedback from national advisors and partners. This tool and protocol were adapted from the System for Observing Play and Leisure Activity (SOPLAY) and System for Observing Play and Recreation in Communities (SOPARC) tools, protocols, and operational definitions.

Funding was provided for the *Evaluation of Healthy Kids, Healthy Communities* by a grant from the Robert Wood Johnson Foundation (#67099). Transtria LLC is leading the evaluation and dissemination activities from April 2010 to March 2014. For more information about the evaluation, please contact Laura Brennan (laura@transtria.com) or Allison Kemner (akemner@transtria.com).

Prior to conducting the observations

Safety

- Assess the safety of the environment for observing before entering the area:
- If dangerous or suspicious activities are taking place, leave the premises, notify the Project Director or Coordinator, and determine whether to schedule a new observation.
- If weather conditions (ice or snow, thunder or lightning) are not ideal for collecting data, leave the premises, notify the Project Director or Coordinator, and determine whether to schedule a new observation period.

Items to remember

- Pencils, a copy of the paper tools for all data collectors, clipboards
- Comfortable shoes, umbrella (if it's raining), sunscreen
- Data collectors' contact information (in case of emergency)
- List and map of sites for data collection, identifying boundaries of the area
- Letter from the Project Director or Coordinator explaining the reason for data collection
- Transportation to and from the site for observers, if needed

Direct Observation schedule

Recommended timeframe for observations:

- Scan one area for 15-30 minutes.
- Scans should last for 30 seconds to 1 minute (depending on the number of people in the area).
- There should be a 1 minute rest between scans.

Schedule observations at different times of the day (2-3 times per day recommended). Example times:

- Morning (7:30 AM)
- Noon (11:30 AM)
- Afternoon (3:30 PM)
- Evening (6:30 PM)

Schedule observations for multiple times a week (2-3 days recommended). Example schedules:

- Two weekdays (Monday through Friday) and one weekend day (Saturday and Sunday)
- Example: Tuesday, Thursday, Saturday

Parks and Play Spaces Direct Observation Mapping Table (Instruction Sheet)

The purpose of mapping is to record various features in different parks and play space settings. Completing the map will allow for a better understanding of the individual behaviors observed in the designated play spaces.

Before observing activities, recorders should have knowledge of the play space where they are going to conduct observations. A rough sketch should be made of the overall park or play space (and how it has been divided into areas for different observers, if necessary). In the case where multiple play spaces are observed, each area should be numbered on the sketch. In addition, all permanent structures and natural and constructed boundaries should be recorded in the sketch. A copy of the sketch should be retained for reference during data analysis.

Below you will find detailed descriptions for each column within the Parks and Play Spaces Mapping Table.

Park or play space: All descriptive details about the park or play space should be easily referenced between the sketched map and the Mapping Table. From the sketched map, place the area number in the first column of the Mapping Table and follow the row across to complete all categories. [Note: The area numbers will also be referenced in the "Parks and Play Spaces observation tool."]

Setting: Record whether the play space being used is a park, playground, recreation facility, or other space (specify).

Location: Record whether the play space being used is indoors or outdoors.

Type: Choose from the following categories.

- Court: An area marked for basketball, volleyball, racquetball, and/or other court games. It contains permanent markings specifically for court games.
- Field: An area marked for football, soccer, baseball, and/or other field games. It contains permanent markings or goals, backstops, or other features specifically for field games.
- Playground: A self-contained space for swinging, sliding, climbing, or other types of play.
- Pool: Consists of wading or swimming pool and the surrounding space.
- Gym: A large indoor space primarily for physical activity and game play.
- Multi-purpose room: An auditorium, classroom, studio, or other indoor space that may be used for physical activity (e.g., dance, aerobics, strength training).
- Multi-purpose field: An open, outdoor, unmarked field that may be used for physical activity.
- Other (specify): Record any other type of area not specified above.

Condition: This section provides basic descriptive information about the designated play space.

- Accessible: Play space is not restricted from public use (e.g., area is not locked or rented to a private party).
- Usable: Play space is safe for physical activity (e.g., equipment is in good condition)
- Supervised: Play space is supervised by personnel (e.g., staff, teachers, volunteers). The supervisor must be in or adjacent to this specific area.
- Organized: Physical activity programs (i.e., scheduled, with leadership by school or agency personnel apparent) are occurring in the play space (e.g., intramurals, interscholastic practices, fitness classes).
- Equipment: Equipment is provided (e.g., balls, jump ropes). *Do not* mark if the equipment is permanent (e.g., basketball hoops) or is owned by people in the park or play space. [Note: The equipment may be provided by parks and recreation, schools, or other organizations/agencies.]

Surface: Record what type of surface is present on the majority of each play space. Choose from the following: sand/dirt, grass, gravel, wood chips/ mulch, foam/ rubber/ tile, cement/ pavement, hardwood, carpet, and other (specify).

Intervention: Record the specific intervention changes that assist children in participating in physical activity in this play space. This will include modifications such as lines painted on courts (e.g., four-square), cuts in the grass or field areas (e.g., baseball diamonds), and poles (basketball hoops, etc.). ***Do not*** record temporary improvements such as chalk lines and portable nets. A modification identifies what the area is primarily designed for, regardless of how it used at a particular time. Identify spaces that have multiple improvements that overlap but cannot be used simultaneously. For instance, a court space may have poles and painted lines that are used for both volleyball and basketball.

Parks and Play Spaces Mapping Table

Play Space Name/Address: _____ Observer Name: _____

Community Partnership: _____ Weather Condition: _____ Date: _____

Play Space	Setting	Location	Type	Condition	Surface	Intervention
1	☐ Park ☐ Rec. facility ☐ Other:	☐ Indoor ☐ Outdoor	☐ Court ☐ Field ☐ Playground ☐ Pool ☐ Gym ☐ Multi-purp. room ☐ Multi-purp. field ☐ Other:	☐ Accessible ☐ Usable ☐ Supervised ☐ Organized ☐ Equipment ☐ Other:	☐ Sand/dirt ☐ Grass ☐ Gravel ☐ Wood chips/ mulch ☐ Foam/ rubber/ tile ☐ Cement/ pavement ☐ Hardwood ☐ Carpet ☐ Other:	
2	☐ Park ☐ Rec. facility ☐ Other:	☐ Indoor ☐ Outdoor	☐ Court ☐ Field ☐ Playground ☐ Pool ☐ Gym ☐ Multi-purp. room ☐ Multi-purp. field ☐ Other:	☐ Accessible ☐ Usable ☐ Supervised ☐ Organized ☐ Equipment ☐ Other:	☐ Sand/dirt ☐ Grass ☐ Gravel ☐ Wood chips/ mulch ☐ Foam/ rubber/ tile ☐ Cement/ pavement ☐ Hardwood ☐ Carpet ☐ Other:	
3	☐ Park ☐ Rec. facility ☐ Other:	☐ Indoor ☐ Outdoor	☐ Court ☐ Field ☐ Playground ☐ Pool ☐ Gym ☐ Multi-purp. room ☐ Multi-purp. field ☐ Other:	☐ Accessible ☐ Usable ☐ Supervised ☐ Organized ☐ Equipment ☐ Other:	☐ Sand/dirt ☐ Grass ☐ Gravel ☐ Wood chips/ mulch ☐ Foam/ rubber/ tile ☐ Cement/ pavement ☐ Hardwood ☐ Carpet ☐ Other:	

Parks and Play Spaces Mapping Table						
Play Space	**Setting**	**Location**	**Type**	**Condition**	**Surface**	**Intervention**
4	☐ Park ☐ Rec. facility ☐ Other:	☐ Indoor ☐ Outdoor	☐ Court ☐ Field ☐ Playground ☐ Pool ☐ Gym ☐ Multi-purp. room ☐ Multi-purp. field ☐ Other:	☐ Accessible ☐ Usable ☐ Supervised ☐ Organized ☐ Equipment ☐ Other:	☐ Sand/dirt ☐ Grass ☐ Gravel ☐ Wood chips/ mulch ☐ Foam/ rubber/ tile ☐ Cement/ pavement ☐ Hardwood ☐ Carpet ☐ Other:	
5	☐ Park ☐ Rec. facility ☐ Other:	☐ Indoor ☐ Outdoor	☐ Court ☐ Field ☐ Playground ☐ Pool ☐ Gym ☐ Multi-purp. room ☐ Multi-purp. field ☐ Other:	☐ Accessible ☐ Usable ☐ Supervised ☐ Organized ☐ Equipment ☐ Other::	☐ Sand/dirt ☐ Grass ☐ Gravel ☐ Wood chips/ mulch ☐ Foam/ rubber/ tile ☐ Cement/ pavement ☐ Hardwood ☐ Carpet ☐ Other:	
6	☐ Park ☐ Rec. facility ☐ Other:	☐ Indoor ☐ Outdoor	☐ Court ☐ Field ☐ Playground ☐ Pool ☐ Gym ☐ Multi-purp. room ☐ Multi-purp. field ☐ Other:	☐ Accessible ☐ Usable ☐ Supervised ☐ Organized ☐ Equipment ☐ Other:	☐ Sand/dirt ☐ Grass ☐ Gravel ☐ Wood chips/ mulch ☐ Foam/ rubber/ tile ☐ Cement/ pavement ☐ Hardwood ☐ Carpet ☐ Other:	

Parks and Play Spaces Direct Observation Instruction Sheet

Use the following codes and definitions to assist you in completing the observation tool.

Observers: Observers will be split into groups of two to observe different areas at the same time (see example below). Areas correspond with the play spaces on the Parks and Play Spaces Mapping Table.

Play Space 1:	Observer 1
	Observer 2
Play Space 2:	Observer 3
	Observer 4

Start Time: This is the clock time for the beginning of each observation period. Each observation will last the same amount of time (with the length of time dependent on the number of individuals within the observed area) with a one minute break in-between observations to record (see below for an example). In the first column, record the start time for each period of observation.

Period 1:	Minute 1 – Observation
	Minute 2 – Break/Record
Period 2:	Minute 3 – Observation
	Minute 4 – Break/Record
Period 3:	Minute 5 – Observation
	Minute 6 – Break/Record

Map: Before observation begins, the observers will split the street into sections (e.g., segments and intersections) and each observer will be responsible for observing his/her section. The observers should record the area number in the second column of the observation tool.

Scanning: When scanning an area, observers should start on the far right end of the area and scan to the left side, then back to the right side for the duration of the scan time. During the scan, the observer should complete the observation tool by tallying activity by age group, in addition to reporting the activity codes for the age group. You should count the same individual's activity level multiple times if they enter your line of vision more than once in the scan time. However, only mark each activity code one time per scan time (see below).

Ages: Each age category has its own count. Please provide the number of youth or individuals represented during the observation period participating in different intensity levels of activity and their specific activity (i.e., activity code).

Activity Level (Sedentary, Moderate, Very Active): During scans of the target area, all people should be accounted for as either participating in very active, moderate, or sedentary behaviors. Mark a tally mark for each individual in the proper activity level and age box (i.e. if you see a 14 year old walking, put a tally mark in moderate under Adolescent).

- **Sedentary** behaviors are defined as activities in which people are not moving (e.g. standing, sitting, playing board games)
- **Moderate** intensity behaviors require more movement but no strenuous activity (e.g. walking, biking slowly)
- **Very active** behaviors show evidence of increased heart rate and inhalation rate (e.g. running, biking vigorously, playing basketball)

Activity Codes: Define what tasks individuals are participating in during the scanning period. All codes are labeled at the bottom of the observation tool. Use each code only one time per observation period (e.g., write "14" once in the space for activity codes even if more than one individual is observed walking).