Iowans Walking Assessment Logistics Kit
A Community Walkability Program

Knoxville
Iowa
Spring 2014
Acknowledgements

I-WALK TEAM

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Introduction

In the past three decades, the number of obese and overweight individuals in Iowa and across the nation has skyrocketed. With obesity comes the greater risk of health complications and life expectancy reduction. As a result, there is a new and growing threat to the overall quality of life. In Iowa alone, 64.8% of adults are identified as either overweight or obese.*

Given the prevalence of obese and overweight individuals, it is important to promote healthy behaviors for all Iowans. Engaging in physical activity is a key component of advocating for healthy behaviors. A vision for healthy Iowa communities must regard and value safe and accessibly walking routes in all locales.

The Iowans Walking Assessment Logistics Kit (I-WALK) program aims to provide community coalitions with relevant local information to assist them in continuously updating, implementing, and evaluating the walkability of their community. The I-WALK program is a project administered by the Iowa Department of Public Health (IDPH) and Iowa State University Extension and Outreach (ISUEO) and implemented by communities across Iowa.

I-WALK utilizes web mapping technologies and global positioning system (GPS) units to accurately map routes that community residents use to walk or bicycle in their locale and identify safety barriers and solutions. Creating environments that encourage community residents to walk or bicycle safely will improve health outcomes by providing additional opportunities to reach the recommended weekly 150 minutes of physical activity, as well as normalize walking as a healthy lifestyle habit.

U.S. Biking and Walking Levels**
- 12% of all trips are by bicycle (1.0%) or foot (10.5%).
- From 2000 to 2009, the number of commuters who biked to work increased by 57%.
- In 2009, 40% of trips in the U.S. were shorter than 2 miles, yet Americans use their cars for 87% of trips 1 to 2 miles.
- Residents of the largest U.S. cities are 1.7 times more likely to walk or bicycle to work than the national average.

Bicycle and Pedestrian Safety
- 14% of all U.S. traffic fatalities are bicyclists (1.8%) or pedestrians (11.7%).
- In the 51 largest U.S. cities, 12.7% of trips are by foot and 1.1% are by bicycle, yet 26.9% of traffic fatalities are pedestrians and 3.1% are bicyclists.
- Seniors are the most vulnerable bicyclists and pedestrians. Adults over 65 make up 10% of walking trips, yet comprise 19% of pedestrian fatalities and 6% of bicycling trips, yet account for 10% of bicyclist fatalities.

Public Health Benefits
- Bicycling and walking levels fell 66% between 1960 and 2009, while obesity levels increased by 156%.
- Between 1966 and 2009, the number of children who bicycled or walked to school fell 75%, while the percentage of obese children rose 276%.
- In general, states with the highest levels of bicycling and walking have the lowest levels of obesity, hypertension (high blood pressure), and diabetes and have the greatest percentage of adults who meet the recommended 30 minutes per day of physical activity.

Economic Benefits
- Bicycling and walking projects create 11-14 jobs per $1 million spent, compared to just 7 jobs created per $1 million spent on highway projects.
- Cost benefit analyses show that up to $11.80 in benefits can be gained for every $1 invested in bicycling and walking.

*IDPH 2011 Behavioral Risk Factor Surveillance System
The program history of I-WALK starts with a pilot program funded by an Iowa Department of Transportation (IDOT) non-infrastructure grant, launched in September 2010 in 12 Iowa schools. Focusing on Safe Routes to School planning and transportation infrastructure data collection the goal of I-WALK is to provide community coalitions with relevant local information to help them continuously update, implement, and evaluate their community walking plans.

Including the success of the initial program I-WALK has been implemented in 31 schools through funding from a variety of sources including Iowans Fit for Life, Iowa Department of Public Health, Iowa Department of Transportation, Centers for Disease Control (CDC).

In July 2012, I-WALK piloted its first project specifically focusing on the aging adult population across Iowa.

During the spring of 2014, two additional school projects were added in Bloomfield and Perry as well as four adult projects in Carroll, Dyersville, Greenfield, and Knoxville.

The project team includes:
- Sarah Taylor Watts, IDPH Project Coordinator
- Catherine Lillehoj, Ph.D., IDPH Chief Epidemiologist and Program Evaluator
- Christopher J. Seeger, Iowa State University Extension and Outreach Landscape Architect and Associate Professor of Landscape Architecture.
- Bailey A Hanson, GIS Analyst, Iowa State University Extension and Outreach

The I-WALK project consisted of three components: 1) Survey, 2) GPS Walkability Workshops and 3) Community Coalitions.
Methodology

Resident Survey
The purpose of the resident survey was to better understand how each individual gets to and from frequented locations and concerns about walking or biking to and from those locations.

The survey was divided into the following sections:
- Multiple-choice survey questions
- Distance mapping between frequent locations
- Route mapping
- Barrier/opportunity mapping

GPS Walkability Workshops
ISU Extension and Outreach trained citizens to use iPhones equipped with Spatial Network’s Fulcrum application to conduct an inventory of their community. Following the 45 minute training, the volunteers then took to the streets to collect data.

Workshop participants mapped information from three categories: intersections, midblock sidewalks, and additional features that impede pedestrians and cyclists.

At intersections, volunteers indicated whether or not there were painted crosswalks and curb cuts and what type of control system, if any, was in place (e.g., stop signs, stoplight, flashing light).

Volunteers evaluated sidewalks at midblock, indicating whether or not there were sidewalks, and if so, whether or not they were in good condition and wide enough for two people to walk side by side.

Additional features included barriers such as vegetation growth across the sidewalk, places where water frequently pools on the sidewalk, sidewalks that suddenly end and barking dogs.

“city really needs to make sidewalks safe to walk on, everywhere”

Citizens collect data during a GPS Walkability Workshop.
Community Coalitions
Inviting and involving key partners to be a part of the community coalition is essential to having a successful I-WALK program. The community was charged with identifying key organizations and individuals ready to be involved in the discussions surrounding a safe and healthy environment for residents to walk or bicycle to and from various locations. A community coalition should be a well-rounded group that represents a wide range of interests and expertise related to walking and biking. Local public health representatives accessed online resources, developed specifically for I-WALK, to engage and lead the coalition members.

LPH led an effort to create a coalition in the community to help address issues identified by the assessment. The communities used resources from the I-WALK website to guide their invitations to local stakeholders that could be involved. Coalitions were asked to invite all of these people to be involved in the effort. After the coalitions were created, the communities started assembling funding for future projects.

The following report includes the data compiled while evaluating the community.

| Area Agency on Aging                      | 1 |
| Local Public Health                       | 1 |
| Community Representative/Citizen          | 1 |
| (local business; neighborhood & community | |
| association representatives; pedestrian, | |
| bicycle, & safety advocates)             | |
| Older Adult                               | 1 |
| Local Law Enforcement/Public Safety       | |
| School Resource Officer                   | |
| Municipal Representative/City Mayor       | |
| City Planner/City Engineer                | 1 |
| ISU Extension and Outreach                | |
| DNR (Department of Natural Resources)     | |
| Representative                            | |
| Parks and Recreation Department           | 1 |
| Others                                    | |
| **Totals**                                | **6** |

“sidewalks are old and narrow and uneven slabs. very easy to trip on them”

A questionnaire consisting of 25 questions was used as the survey instrument. Questions addressed topics related to identifying the most frequented locations and distance to those locations, transport to and from frequented locations, barriers and assets of most frequented locations, walkability and bikeability of frequented locations, and neighborhood barriers and assets. Survey questions also requested demographic information such as age group, gender, and employment status.

Residents were invited to participate in the survey through a campaign that included flyers and individualized letters. A random sample of Knoxville residents were identified. Each resident was sent an invitation letter to participate in the survey. The letter included instructions on how to participate in the survey. Completed surveys were mailed to IDPH in the provided stamped envelope. Surveys were then transcribed into a digital format to be analyzed.
The purpose of the survey was to better understand how each respondent travels to and from community locales and what concerns, if any, they have about walking or biking to and from those identified locations.

There were four parts to this survey:
- Multiple choice survey questions
- Distance mapping between home and frequented locations
- Route mapping
- Barrier/opportunity mapping

32 surveys were completed and returned. The following graphs represent data collected from the survey completed by community residents. All survey responses were collected by the I-WALK program.
Community Survey

What type of community locations do you currently walk/bike to?

- Library: 36.0%
- Retail Location or Mall: 36.0%
- Grocery Store: 36.0%
- Congregate Meal Site: 4.0%
- Community Center: 20.0%
- Convenience Store: 12.0%
- Place of Worship/Church: 16.0%
- Post Office: 48.0%
- Park: 20.0%
- Bank: 16.0%
- Recreation Center: 4.0%
- Work: 20.0%
- Other: 40.0%

Why do you walk or bike to these locations?

- Exercise: 84.0%
- Health (Dr.’s orders): 20.0%
- Social activity: 36.0%
- Personal enjoyment: 72.0%
- No public transportation: 4.0%
- Save gas/Money: 20.0%
- I don’t have a driver’s license: 16.0%
- I don’t own a vehicle: 16.0%
- Environmentally friendly: 24.0%
- Other: 8.0%
On days you walk/bike, how much time do you spend doing so?

- Less than 5 minutes: 11.1%
- 5 - 10 minutes: 33.3%
- 11 - 20 minutes: 55.6%
- More than 20 minutes: 15.4%
- Do not know/not sure: 0%

On days you walk/bike, how far do you go?

- Less than 1/2 mile: 15.4%
- 1/2 mile to 1 mile: 30.8%
- 1 to 3 miles: 34.6%
- 3 to 5 miles: 15.4%
- More than 2 miles: 3.8%
- Do not know: 0%

In a typical week during each season, how many DAYS PER WEEK do you walk or bike?

<table>
<thead>
<tr>
<th>Season</th>
<th>Bike</th>
<th>Walk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>2.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Winter</td>
<td>2.9</td>
<td>4.2</td>
</tr>
<tr>
<td>Spring</td>
<td>2.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Summer</td>
<td>2.3</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Rate the condition on your most used walking/biking route:

<table>
<thead>
<tr>
<th>Condition of Sidewalks</th>
<th>25.9</th>
<th>55.6</th>
<th>11.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non existent</td>
<td>7.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Street crossings/accessibility</th>
<th>57.7</th>
<th>30.8</th>
<th>11.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non existent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overall rating of walkability/bikeability of your most frequented route

- Excellent: 22.2%
- Good: 55.6%
- Fair: 22.2%

Percent (n=27)
Which of the following keep you from walking or biking more often?

- Time: 48.0%
- Inconvenient (easier to drive to location): 24.0%
- Distance: 28.0%
- Speed of traffic along route: 8.0%
- Amount of traffic along route: 8.0%
- Train/railroad tracks: 4.0%
- Sidewalks or pathways (none or inadequate): 36.0%
- Safety of intersections and crossings: 4.0%
- Violence or crime: 11.1%
- Weather or climate: 40.0%
- Safe place of bike storage/parking: 4.0%
- Other: 12.0%

In your opinion, how much does your community encourage walking and/or biking?

- Strongly encourage: 11.1%
- Encourage: 33.3%
- Neither: 55.6%

With whom do you walk most of the time?

- Alone: 56.3%
- Friends: 9.4%
- Neighbors: 9.4%
- Club or class: 9.4%
- Spouse/partner: 25.0%
- Children: 12.5%
- Pets: 9.4%
- Other family/relatives: 3.1%
- Prefer not to answer: 3.1%
Indicate which of the following best applies to you and your neighborhood.

There are sidewalks on most of the streets in my neighborhood. (n=29)

The sidewalks in my neighborhood are well maintained. (n=31)

There are bicycle or walking trails in or near my neighborhood. (n=28)

There are many attractive natural sites in my neighborhood. (n=29)

There is a safe amount of traffic in my neighborhood. (n=30)

Most drivers drive at safe speeds in my neighborhood. (n=29)

My neighborhood streets are well lit at night. (n=28)

I am not worried about crime in my neighborhood during the day. (n=31)

I am not worried about crime in my neighborhood during the night. (n=31)

The streets in my neighborhood are easy to walk (i.e. few hills). (n=31)

The air quality in my neighborhood is good. (n=31)

The dogs in my neighborhood are properly confined or restrained. (n=31)

I see a lot of people walking and biking in my neighborhood. (n=31)
What is your gender?

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percent (n=31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>54.8</td>
</tr>
<tr>
<td>Female</td>
<td>45.2</td>
</tr>
</tbody>
</table>

What is your age range?

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Percent (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 50 years</td>
<td>12.5</td>
</tr>
<tr>
<td>50-55 years</td>
<td>6.3</td>
</tr>
<tr>
<td>55-60 years</td>
<td>6.3</td>
</tr>
<tr>
<td>61-65 years</td>
<td>6.3</td>
</tr>
<tr>
<td>66-70 years</td>
<td>15.6</td>
</tr>
<tr>
<td>71-75 years</td>
<td>25.0</td>
</tr>
<tr>
<td>76-80 years</td>
<td>12.5</td>
</tr>
<tr>
<td>81-85 years</td>
<td>12.5</td>
</tr>
<tr>
<td>86 years and older</td>
<td>12.5</td>
</tr>
</tbody>
</table>

How many individuals reside in your home?

average: 1.88

Number of people under 18 residing in your home

average: 0.28

Within what range is your total annual household income?

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Percent (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>34.4</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>15.6</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>9.4</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>3.1</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>25.0</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>12.5</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>9.4</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>3.1</td>
</tr>
<tr>
<td>$150,000 or more</td>
<td>12.5</td>
</tr>
</tbody>
</table>

What is the highest grade or year of school you completed?

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percent (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eighth grade or less</td>
<td>15.6</td>
</tr>
<tr>
<td>Some high school</td>
<td>34.4</td>
</tr>
<tr>
<td>High school or GED certificate</td>
<td>15.6</td>
</tr>
<tr>
<td>Some technical school</td>
<td>3.1</td>
</tr>
<tr>
<td>Some college</td>
<td>25.0</td>
</tr>
<tr>
<td>College graduate</td>
<td>9.4</td>
</tr>
<tr>
<td>Post grad or professional degree</td>
<td>12.5</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>12.5</td>
</tr>
</tbody>
</table>
### Are you currently?

- **Employed full time** 15.6%
- **Employed part time** 3.1%
- **Self-employed** 3.1%
- **Out of work less than 1 year** 3.1%
- **Out of work more than 1 year** 3.1%
- **Homemaker** 6.3%
- **Student** 6.3%
- **Retired** 71.9%
- **Disabled/unable to work** 6.3%

### What is your current housing situation?

- **Subsidized housing** 6.3%
- **Own private home** 68.8%
- **Rent non-subsidized housing** 18.8%
- **Live with family** 3.1%
- **Retirement community (independent)** 3.1%
- **Retirement community (assisted)** 3.1%
- **Retirement community (unspecified)**

### I would like to participate in a walking assessment of our community.

- **Yes** 55.2%
- **No** 44.8%
Community Survey

Survey respondents were asked to provide their home address and the locations they walk or bike to. This information was entered into a Geographic Information System (GIS) to visualize where the respondents lived along with the locations they walked or biked to. To keep individual residences private, locations with a darker red overlay indicate locations with a higher density of respondents. Points representing the locations respondents go are shown on the map and also represented in the graph at the beginning of the survey report and in the map on the following page.
The density map below illustrates (dark blue) the locations identified most often by respondents as locations to which they walk or bike.
Respondents identified sidewalk challenges to walking and biking and located these on a map.
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Respondents identified challenges to walking and biking and located these on a map.
Using aerial photography and the data collected by the volunteers using the iPhone SRTS infrastructure tool, the map below identifies the streets that have sidewalks on one, both sides of streets or no sidewalks at all.
The map below uses Iowa Department of Transportation data from 2004 through May 2014 to identify the intersections where accidents occurred. Special consideration should be given to these intersections when identifying routes for walking programs.
The map below uses Iowa Department of Transportation data from 2010 through May 2014 to identify the locations where accidents with non-motorists occurred. Special consideration should be given to these locations when identifying routes for walking programs.
Survey Comments

“city really needs to make sidewalks safe to walk on, everywhere”
“due to leg problems I am unable to walk”
“my biggest frustration when walking is the lack of continued sidewalk on all streets. sometimes found it more convenient to walk in the street and often times find it safer than walking on some of the sidewalks or nonexistant sidewalks”
“people walking their dogs should take a plastic bag to pick up waste”
“sidewalks are old and narrow and uneven slabs. very easy to trip on them”
“sidewalks need to be fixed. the northwest and northeast corners need to be fixed.”
“since it is difficult to get to sidewalks from my home, I usually drive to where I walk in safety and comfort which is the cemetery”
“there’s only a little short sidewalk on my street. all on one side. you have to walk on road.”
Areas with damaged sidewalks identified by the volunteers using the iPhone device.

- Poor - is uneven or has major cracks or missing concrete throughout
- Fair - has some major cracks and uneven areas, but still able to ride a bicycle
- Good - free of major cracks and uneven area, can easily walk or bicycle
Using the iPhone devices, volunteers identified sidewalks that were not set back from the street as well as sidewalks not wide enough for two adults to walk side-by-side.
Street Lighting and Pleasant Routes

Volunteers evaluated at the midblock if they could see that street lighting was provided at the nearest intersection or along the street. Volunteers also identified if the particular street was pleasant to walk.
Painted Crosswalks

Using the iPhone devices, volunteers identified areas that had visible painted crosswalk.

Iowa State University Extension & Outreach
Extension Community Economic Development
Contact: Chris Seeger cjseeger@iastate.edu
May 2014
Using the iPhone devices, volunteers identified areas that they thought as an adult that a child would not feel safe crossing. In addition, specific intersections were also identified as being equally unsafe for an adult to cross.
Using the iPhone devices, volunteers identified intersections where the data collector did not consider there to be sufficient time to cross the street safely as well as intersections where items might make it difficult for a motorist to see the pedestrian or for the pedestrian to see motorists.
Using the iPhone devices, volunteers identified intersections where the sidewalks did not have curb cuts connecting to the street and where the street might be too wide for a pedestrian to safely cross.
Using the iPhone devices, volunteers identified various infrastructure challenges (e.g., car blocking a sidewalk) and assets (e.g., presence of a bike rack).
A walking club occurred in the spring of 2014 in conjunction with the I-WALK project. The club was led by Aging Resources of Central Iowa and Marion County Senior Nutrition. The club met at the Knoxville Senior Nutrition Site covered an 8-9 block radius. The group walked from the site to the old East Elementary school. The participants and volunteers were recruited to walk for 12 days. Participants were recruited by Dawn Allspach-Kline and volunteers were recruited through the senior nutrition site. The participants enjoyed the walking club and they intend to continue the walking club through fall. The walking club has also recruited more walkers than originally started. A local nursing facility (Griffin’s) is going to “sponsor” pedometers for the walkers. The walkers look forward to seeing the distance that they walk. The volunteers are excited to get the results of the study to share with other entities in the community.
The goal of I-WALK is to give a community the opportunity to make walking and bicycling to and from various locations safer and more accessible for residents of all abilities and to increase the number of residents who choose to walk and bicycle. On a broader level, I-WALK can enhance health and well-being, ease traffic congestion, improve air quality and improve community members’ overall quality of life. Communities are encouraged to tailor a combination of engineering, education, encouragement, evaluation, and enforcement strategies to address the specific needs of their community.

**Engineering**

"Engineering" is a broad concept used to describe the design, implementation, operation and maintenance of traffic control devices or physical measures, including both low and high-cost capital measures. Engineering approaches can improve children’s safety to enable more bicycling and walking. Engineering should also improve the accessibility of walking and bicycling routes for children with disabilities.

**Enforcement**

Enforcement, especially for SRTS programs, is a network of community members working together to promote safe walking, bicycling and driving. This can be accomplished through safety awareness, education and, where necessary, the use of ticketing for dangerous behaviors. Enforcement includes students, parents, adult school crossing guards, school personnel and neighborhood watch programs working in conjunction with law enforcement to enforce rules for safe walking, bicycling and driving.

**Encouragement**

Encouragement strategies are about having fun, they generate excitement and interest in walking and bicycling. Special events, mileage clubs, contests and ongoing activities all provide ways for parents and children to discover, or rediscover, that walking and bicycling are doable and a lot of fun.

Increase the number of children who walk and bicycle to school safely. In particular, encouragement and education strategies are closely intertwined, working together to promote walking and bicycling by rewarding participation and educating children and adults about safety and the benefits of bicycling and walking.

**Education**

While education dovetails with engineering and enforcement, it is most closely linked to encouragement strategies. For example, children may learn pedestrian and bicyclist safety skills and then get the chance to join a mileage club that rewards children for walking or bicycling to school. Encouragement activities also offer “teachable moments” to reinforce pedestrian and bicyclist safety education messages.

**Evaluation**

Evaluation is used to determine if the aims of the strategies are being met and to assure that resources are directed toward efforts that show the greatest likelihood of success. Also, evaluation can identify needed adjustments to the program while it is underway. This information describes how to conduct a SRTS program evaluation that is tailored to that program’s objectives and strategies.
The first steps of I-WALK is to do an assessment. Once the infrastructure data is collected, the next step is to observe how community residents get to and from various locales. Communities are encouraged to spend time observing how and where individuals cross the street. Using the data provided in the infrastructure assessment and online survey as a guide, evaluators can determine where observations should start.

The primary focus area should be around frequently visited community locations. Past this point, it becomes increasingly unlikely that an individual would walk/bike. After the observation step has been completed, the community should use the collected data and observations to prioritize where to begin improvements.

The following recommendations are “general” recommendations to all communities. The word “general” does not imply that they are of lesser importance than any of the specific recommendations for each one of the school districts and their respective community. These are common recommendations of importance to create safer pedestrian and bicycle environments, while at the same time encouraging walking and bicycling to and from community locations.

General Recommendations for Community:

- Focus first on projects that are of low-cost and easy to implement.
- Implement a Complete Streets design for the community.
- Update the city’s comprehensive plan every two years.
  - With each comprehensive plan update, specifically address access to physical activity infrastructure by all segments of the population in the streets/sidewalk and parks/recreation sections.
  - In the comprehensive plan, set specific goals and evaluation criteria for access to and availability of the physical activity infrastructure including (but not limited to):
    - Sidewalks
    - Bike paths
    - Walking and hiking trails
    - Recreation facilities
    - Skating rinks and other winter outdoor activity facilities
    - Any other initiatives to encourage and facilitate physical activity and enjoyment of the outdoors
- Develop and initiate city-sponsored programs to retrofit sidewalks in developed areas where sidewalks are absent and/or had not been required.
General Recommendations to Communities

- Implement annual inspection and repair of all physical activity infrastructure.
- Keep walkways and bikeways separate from the street (buffer with grass, trees or even a bike lane).
- Provide a sidewalk on both sides of the street to prevent jumping from one side to the other.
- Ensure sidewalks are the appropriate width for the site conditions (sidewalks adjacent to street should be wider).
- Provide ramps and curb cuts at all intersections for all sidewalks.
- Mark ALL crosswalks in the community:
  - Use “zebra stripe pattern” as opposed to simple striped lines across the road.
  - Provide “shark teeth” paint markings to show where cars should stop for crosswalks, particularly on multi-lane roads.
  - While crosswalk flashers may seem to be an area to focus on, be aware that studies show they only make a three mile reduction in speed when these devices are installed. Putting up signs to remind drivers that it is the law to give pedestrians the right of way and fines exist for disobeying the law can also be effective.
- Review the Manual on Uniform Traffic Control Devices (MUTCD) to ensure signage is current. The MUTCD can be found online at http://www.mutcd.fhwa.dot.gov/htm/2009r1r2/html_index.htm
- Post traffic control signs on each I-WALK route with the fine listed for violating the law. Ticket violators in the first few days of posting to ensure signage is taken seriously.
  - Publish walking maps for each neighborhood that includes:
    - Community amenities and services such as schools, libraries, parks, city offices, etc.
    - Unique vegetation and bird species
    - Distances
    - Walking times to destinations
    - Safest routes, crossings, etc.

General Recommendations:
- Move bike racks away from centralized pickup points to avoid congestion.
- Provide bike racks that allow the frame of the bike to be attached to the bike rack, not just the wheels.
- In instances where people turn at the same time the crosswalk light is green, consider using a “leading pedestrian interval” instead of a concurrent signal.
- Use methods to slow traffic:
  - Speed bump
  - “Street diet” (go from four lanes to two)
  - Extend curb into road (also creates a shorter distance for the pedestrian to cross).
Additional Resources

The I-WALK website offers many useful resources to those looking for more information:

- Webinars
- Infrastructure
- Iowa Safe Routes to School Workshops
- Iowa Department of Natural Resources
- Iowa Department of Transportation
- ...and many more

Walking with a Purpose
This resource will help your school conduct a walkability assessment of its neighborhood. The checklist will help assess what makes the walking environment inviting and safe, as well as identify barriers that exist. After the assessment, school staff can help students become advocates for a more walkable community.

Healthy Community Design Checklist
The Healthy Community Design Initiative’s (HCDI) Healthy Community Design Checklist is a plain-language checklist for community members with little or no knowledge of the public health and built environment connection. It includes healthy community design elements that should be considered while participating in a land-use planning process.

In the new report, the Alliance for Biking & Walking ranks all 50 states and the 51 largest U.S. cities on bicycling and walking levels, safety, funding and other factors. The report is funded by CDC’s Healthy Community Design Initiative.

Federal Highway Administration: Livability Fact Sheets
The fact sheets provide information and examples on how considering livability during the transportation decision-making process can benefit communities. The fact sheet topics include health, housing costs, freight, land use, safety, management and operations, rural communities and the environment.

Complimentary Copies Of The 2012 Minnesota Bike Guide Are Available Now
To encourage more to become, or stay active this year’s guide has expanded its pages offering information to more than 200 bike related events, many bike-friendly maps of places we all like to ride and helpful tips. Printed courtesy of our many wonderful sponsors, guides come in bundles of 25 and are available by contacting us.

To access these resources and others, visit www.i-walk.org and click on “Resources”.
A PDF version of this report and other supplementary materials is available at wwwI-WALK.org