International Scan on Pedestrian and Bicyclist Safety and Mobility: May 2009

Sponsored by
Federal Highway Administration (FHWA)
American Association of State Highway Transportation Officials (AASHTO)
National Cooperative Highway Research Program (NCHRP)
Outline

1. Introduction
2. General Findings: broader issues and themes that provide context for later details
3. Key Findings: details for the 5E’s
   – Engineering
   – Education
   – Enforcement
   – Encouragement
   – Evaluation (Monitoring)
4. Recommendations
Scan Tour Objectives

• Improving Pedestrian and Bicyclist Safety and Mobility
  – Policy
  – Engineering
  – Education
  – Enforcement
• Safe Routes to School Programs
• Monitoring Usage Levels and Exposure
• Safety Research and Evaluation
May 2009 Scan Tour

- Denmark
  - Copenhagen
  - Nakskov
  - Malmö
- Sweden
  - Lund
  - Malmö
- Germany
  - Berlin
  - Potsdam
- United Kingdom
  - Bristol
  - London
- Switzerland
  - Winterthur
  - Bern
- Switzerland
Implementing Foreign Practices

• Some policies & practices easily transferable
  – Education, encouragement, enforcement

• Some engineering and design practices will likely require thorough safety evaluation
  – Differences in culture and behavior, but these can adapt over time
  – Typical safety evaluations may not capture longer-term behavior changes
Numerous Factors Contribute to Safety and Mobility

- Urban and land use policy
- Political support at all levels, not just staff
- Motor vehicle operating costs
- Parking policies
- Enforcement policies
- Street design hierarchy
- Integration with public transport
- Connected on-street and off-street networks
- Traffic safety education for children
- Many other details that make walking and bicycling easy, convenient, and enjoyable
Safety-in-Numbers (Awareness-in-Numbers)

• When pedestrians and bicyclists are a common element on/along streets, motorists expect their presence.

• For this reason, biking and walking is actively promoted beyond providing “asphalt and concrete”.

Introduction  General Findings  Key Findings  Recommendations
Engineering Measures for Pedestrians

- Passive detection to call, truncate, extend, or cancel pedestrian phase (PUFFIN signal)
- Near-side pedestrian signal heads

Introduction  General Findings  Key Findings  Recommendations
Engineering Measures for Pedestrians

- Near-side traffic signals
- Warning beacons for right-turning motorists
Engineering Measures for Pedestrians

- Refuge islands
- Railing to direct pedestrians to preferred crossing locations
- Raised crosswalks at unsignalized crossings
Bicycle Traffic Calming Device
Accessible Features
Accessible Features
Engineering Measures for Bicyclists

Intersection safety
- Convex mirrors
- Advanced stop bars
- Bicycle-specific traffic signals
- Bike boxes
Engineering Measures for Bicyclists

Separated facilities

- Cycle tracks
- Separated bike lanes
- Shared use paths with delineated space for walking and biking
Engineering Measures for Bicyclists

Pavement markings

• Dashed bike lanes through intersections
• Color at conflict points
• Longitudinal bike symbols
Frauenfeld
Low-Speed Street Design

- Residential and commercial areas
- 20 mph, 20 to 30 kilometers per hour
- 4 conditions for use
Integration With Public Transport

- Plentiful, convenient bike parking at stations
- Bikes on trains & buses, even during peaks
- Bike rental or sharing near stations
- Channels/ramps on stairways for bike access
Welcome to Hourbike

The following notes are important

Make friends with your bike!

Check that all of its equipment is working properly.

Ensure the lights are switched on.

Bell etiquette is important. Use it when necessary.

Return the bike to an Hourbike station to end your hire.

Use the combination lock if you need to leave the bike during your hire. The code is provided when you rent the bike.

Remember this bike is your responsibility until you return it to an Hourbike station.

Ride safely and have fun.

If you need assistance call us.

This number of this bike is:

Joel

www.hourbike.com

0871 598 BIKE
Traffic Safety Education

- Pervasive, widespread, ongoing education programs for children
- Participation from wide range of agencies and organizations
Widespread Photo Enforcement

• Not just a tool for motor vehicle safety
• Better motorist compliance with speed limits and traffic signals improves walking and biking safety
Encouragement (“Soft” Measures)

- Promotion was important for both mode share and safety goals
- Variety of programs and activities
  - Route signing and maps
  - Online travel planners
  - Employer-sponsored programs (bike-to-work)
  - Public health-sponsored programs
  - Government marketing campaigns
Evaluation (Monitoring)

• Regular performance reports that measure progress toward policy goals
  – Pedestrian and bicyclist mode share
  – Pedestrian and bicyclist safety
• “Showcase” counters in highly visible location
Recommended Implementation

1. Encourage policy that gives biking & walking modes highest priority in the road user hierarchy
   - Most vulnerable road users
   - Accomplish multiple public policy goals

2. Develop & implement a performance reporting program that regularly measures progress toward stated goals
Recommended Implementation

3. Evaluate measures for pedestrian safety
4. Evaluate measures for bicyclist safety
5. Evaluate applicability of lower-speed street design in commercial and residential areas
6. Develop guidance on best practices for integrating biking and walking with public transit
7. Institutionalize ongoing traffic safety education at an early age
8. Unify all US traffic safety campaigns under a single national brand
9. Promote the use of photo enforcement as a tool to improve pedestrian and bicyclist safety
10. Develop & implement programs that encourage and enable regular walking and biking
Next Steps

• Scan team identified numerous approaches
• Have already started implementation phase
• Will also rely on “champions” in the U.S. to implement policies and practices