Overview

- Introduction to HIA
- Bicycle & Pedestrian Master Plan HIA
- Lessons learned
Why HIA?

Adapted from McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health affairs (Millwood) 2002; 21:78-93
Recommended physical activity: 30 min per day x 5 days per week = 150 min per week

“one would assume that people would be more likely to walk if walking trips became more pleasant, safer, or in any sense easier, or if alternatives to walking became more costly or more difficult.”
– TRB & IOM 2005
Plan Background

**Projects**
Priority trails, bikeways, and sidewalks

**Programs**
1. Restructure bike/ped committee
2. Improve internal communications
3. Ciclovia
4. School programs
5. East county scenic tour

**Policies**
1. Developing a network
2. Jurisdictional coordination
3. Traffic & demand management
4. Education & encouragement
5. Funding
6. Active transportation & supporting land uses
Bike & Pedestrian Master Plan HIA

Rapid HIA
- Limited baseline assessment
- Findings of impacts (direction)
- Recommendations

Comprehensive HIA
- Literature review
- Full baseline assessment
- Findings of impacts (direction + magnitude)
- Recommendations

Screening • Scoping • Assessment • Reporting • Evaluation
### Baseline Conditions Assessment

<table>
<thead>
<tr>
<th>Social Determinants</th>
<th>Built Environment Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>Connectivity</td>
</tr>
<tr>
<td>Education</td>
<td>Density</td>
</tr>
<tr>
<td>Race</td>
<td>Urban Design</td>
</tr>
<tr>
<td>Gender</td>
<td>Land use mix</td>
</tr>
<tr>
<td>Age</td>
<td>Bikeways</td>
</tr>
<tr>
<td></td>
<td>Sidewalks</td>
</tr>
<tr>
<td></td>
<td>Access</td>
</tr>
</tbody>
</table>
Findings: Health Outcomes

Life Expectancy at Birth By Zip Code

Zip codes
Life Expectancy in 2007

- 75.5 - 77.4
- 77.5 - 77.9
- 78.0 - 79.2
- 79.3 - 80.1
- 80.2 - 82.1

Overweight and Obesity by Zip Code 2009

Percent adults overweight or obese

- 50% - 52%
- 53% - 55%
- 56% - 60%
- 61% - 68%
- 69% - 74%
- No data

For further information contact Clark County Public Health Assessment and Evaluation: brendon.haggerty@clark.wa.gov or (360) 397-8000 ext. 7281
Findings: Social Determinants

Median Household Income By Census Block Group 2009

Block Groups
Median income in 2009
$10,854.00 - $49,364.00
$49,364.01 - $60,741.00
$60,741.01 - $68,977.00
$68,977.01 - $77,712.00
$77,712.01 - $134,558.00

Percent Non-hispanic White Population By Block Group

Percent
59.2% - 82.3%
82.4% - 86.6%
86.7% - 90.4%
90.5% - 92.7%
92.8% - 97%

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Findings: Built Environment

Walkability by Block Group

Bikeability by Block Group

The walkability index combines measures of density, street connectivity, land use mix, and retail floor-area ratio. For further information contact Clark County Public Health Evaluation and Assessment: brenden.haggerty@clarkwa.gov (360) 397-6000 Ext. 7281

Bikeability calculated as bikeway miles/square mile based on county GIS files and volunteer bikeway inventory. For further information contact Clark County Public Health Evaluation and Assessment: brenden.haggerty@clarkwa.gov (360) 397-6000 Ext. 7281

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Measuring Walkability

Land Use Mix

Connectivity

Retail FAR

Density

Findings: Built Environment

Walkability by Block Group

Walkability Index (quintiles)
- Lowest
- Higher
- Highest
- UGA
- Highways

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Findings: Built Environment

Clark County Park Access

Mean Distance to Elementary Schools By Elementary School Attendance Area

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Findings: Built Environment

Access to Fast Food

Access to Grocery Stores & Supermarkets

35% (26%) within ½ mile

15% (10%) within ½ mile
Recommended Geographic Focus

- Health Outcomes
- Socio-economic Status
- Geographic Focus
- Built Environment
Recommended Geographic Focus

Socioeconomic Status & Walkability by Block Group
Note: “High” and “low” defined as two highest or lowest quintiles. For obesity data, block groups were included based on whether they are contained by tracts with high obesity rates. Obesity data provided by Institute of Portland Metropolitan Studies.

Obesity & Walkability by Block Group
Note: “High” and “low” defined as two highest or lowest quintiles. For obesity data, block groups were included based on whether they are contained by tracts with high obesity rates. Obesity data provided by Institute of Portland Metropolitan Studies.
Prioritization Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Socioeconomic status</td>
<td>10 points</td>
</tr>
<tr>
<td>Walkability potential</td>
<td>4 points</td>
</tr>
<tr>
<td>Connectivity</td>
<td>5 points</td>
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<tr>
<td>Low-stress facilities</td>
<td>1 point</td>
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</table>
Proposed Projects

Clark County Public Health 2010

Priority Sidewalks
Priority Trails
Priority Bikeways
City Boundaries
Existing Bikeways & Trails

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Proposed Project Service Area

Clark County Public Health 2010

Priority Sidewalks
Priority Trails
Proposed Bikeways
City Boundaries
Service Area

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Project Impact
### Project Impact

**Unincorporated Population:** 211,800  
**Population served by Top Priority Projects:** 94,969

<table>
<thead>
<tr>
<th>Neighborhood Income Quintile</th>
<th>Top Priority Project Population</th>
<th>% of Project Population</th>
<th>% of Priority Project Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>19,720</td>
<td>21%</td>
<td>26%</td>
</tr>
<tr>
<td>Q2</td>
<td>15,928</td>
<td>17%</td>
<td>21%</td>
</tr>
<tr>
<td>Q3</td>
<td>14,961</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>Q4</td>
<td>21,480</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>High</td>
<td>22,880</td>
<td>24%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>94,969</strong></td>
<td><strong>94,969</strong></td>
<td><strong>107 Miles</strong></td>
</tr>
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</table>
**Project Impact**

### Existing Bikeway Network Density

**Clark County Public Health 2010**

<table>
<thead>
<tr>
<th>Block Groups</th>
<th>Bikeway Mi/Sq Mi</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>0.1 - 0.5</td>
<td></td>
</tr>
<tr>
<td>0.6 - 1.4</td>
<td></td>
</tr>
<tr>
<td>1.5 - 2.2</td>
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</tr>
<tr>
<td>2.3 - 6.9</td>
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</tr>
</tbody>
</table>

Incorporated block groups

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### Bikeway Network Density After Priority Improvements

**Clark County Public Health 2010**

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<tr>
<td>1.5 - 2.2</td>
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</tr>
<tr>
<td>2.3 - 9.7</td>
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Incorporated block groups

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## Program Impact

<table>
<thead>
<tr>
<th>Program</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve communications between planning and public works</td>
<td>Supportive</td>
</tr>
<tr>
<td>Revise Bicycle &amp; Pedestrian Advisory Committee</td>
<td>Supportive</td>
</tr>
<tr>
<td>Create school education &amp; encouragement programs</td>
<td>Positive</td>
</tr>
<tr>
<td>Establish “Clarklovia”</td>
<td>Positive</td>
</tr>
<tr>
<td>Develop scenic tour</td>
<td>Positive</td>
</tr>
</tbody>
</table>
Policy Impact

- Include recommended policies from Rapid HIA
- Implementation issues

<table>
<thead>
<tr>
<th>Policy</th>
<th>Impact</th>
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<tr>
<td>Developing a network</td>
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<tr>
<td>Active transportation &amp; supportive land uses</td>
<td>Supportive</td>
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**Discussion**

**Strengths**  
early involvement, extensive baseline assessment, collaborative relationships

**Challenges**  
data needs, state of the science, economic terms, “pass through” criteria, residential focus, lack of trails network data

Read related documents at:  
http://www.clark.wa.gov/planning/bikeandped/

Acknowledgements  
Robert Wood Johnson Foundation; ESRI, Inc.