Alameda County
High-injury Network

Active Transportation Safety Workshop
May 9, 2019
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Overview

- **Origins** of the High-injury Network
- High-injury Network **Methodology**
- Countywide **Pedestrian High-injury Network**
- Countywide **Bicycle High-injury Network**
- **Future Analysis and Uses**
Origins: Collision History

Bike Collisions

Pedestrian Collisions

Sources: SWITRS via TIMS 2006-2016
Origins: Bikes/Peds Most Vulnerable

Sources: SWITRS 2012-2016
Origins: Countywide Active Transportation Plan

Safety

Increase the safety of people bicycling and walking in Alameda County by identifying projects, policies and programs that address the greatest safety needs and by optimizing investments, through corridor-level analyses, performance evaluation, and by following industry best practices.

Multimodal

Create connected networks of streets and trails that enable people of all ages and abilities to walk and bike to meet their daily needs, including access to transit, work, school, and major activity centers.

Encouragement

Increase walking and biking in Alameda County through adoption of policies and implementation of programs that complement infrastructure improvements and encourage people to walk and bike for many different types of trips.

Impactful Investment

Invest public monies in projects and programs that maximize benefits for Alameda County’s transportation system, complement local and regional investments, and integrate walking and bicycling needs into all transportation planning activities.
High-injury Network Methodology

1) **Collect & Map Data:** Collisions from TIMS and SWITRS (2012-2016)

2) **Weight Data:**
   - **Fatal or Severe**: x10
   - **Visual injury or Complaint of pain**: x5
   - **Property damage only**: x1

3) **Aggregate into corridors:** (1/2-mile sliding window)

4) **Weight for Exposure:** (high, medium, low by city)

5) **Set Threshold:** Top 20%
High-Injury Network Methodology: Exposure

Biking Trips and Collisions

Walking Trips and Collisions

Source: CHTS, SWITRS/TIMS (2012-2016), CHTS 2010-2012
Pedestrian High-injury Network

65% of pedestrian collisions occur on just 4% of roads (243 miles)

Planning Area Breakdown:
- North: 51%
- Central: 26%
- South: 16%
- East: 8%
Bicycle High-injury Network

59% of bike collisions occur on just 4% of roads (254 miles)

Planning Area Breakdown:
- North: 53%
- Central: 13%
- South: 20%
- East: 14%
Local High Injury Networks

- Expanded Network:
  - Captures high-risk and low use segments
  - Tool for local jurisdiction
  - Secondary prioritization criteria
Future Analysis
Auto HIN
Future Analysis
Types of Collisions

- **Pedestrians**
- **Pedestrians Age 65+**
- **Hit and Run**
- **Bicyclists**
- **Bicyclists <15**
- **Motorcycles**
- **Speed Related**

**OTSA Ranking, 2015 (1 = worst)**

- **Nighttime** (9 p.m. – 2:59 a.m.)
- **Alcohol Involved**
- **Had Been Drinking Driver 21-34**
- **Had Been Drinking Driver <21**

Green indicates highest-performing third of counties.
Red indicates lowest-performing third of counties.

Source: California Office of Traffic Safety.
Potential Uses

• CW HIN and Local HINs used as prioritization criteria in the CATP

• Jurisdiction-specific information available as part of the CATP Community Profiles Chapter
  • Local HINs
  • Major Barriers

• Staff available to present to local BPACs
Thank You

Countywide Active Transportation Plan Team

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