Enhanced Identification of High-Risk Intersections

Haris Zia
Graduate Transportation Engineer
**Auckland (2013)**

- 233 Fatal or Serious injury crashes at intersections
- 79% occurred at intersections with no previous fatal or serious injury crashes in past 5 years
High-Risk Intersections Guide

Guides identification, targeting and remediation of key road safety issues at high-risk intersections
Estimating the Risk of Death and Serious Injury

Speed Limit
Intersection Form and Type
Crash Movement Types
Calculating a Risk Profile

- Accessible information
- Understanding of assessment techniques
- Approximately 30 minutes per intersection
- Problem?
Risk Profiling a City

The right tool for the job:
Methodology Overview

1. Road Centreline Data
2. Extract Crash Data from CAS
3. Review of Data Quality
4. Clean Road Centreline Data
5. Create Intersections
6. Run Models
7. Calculate Risk Metrics

Collective and Personal Risk Scores
- LOW
- LOW-MED
- MED
- MED-HIGH
- HIGH
Outputs in Web Format
Outputs in Web Format
Conclusions

• High-risk metrics approach represents a shift away from a wholly reactive response to road safety.
• Key to identifying high risk intersections is to undertake analysis at a network wide level → GIS
• Unlock the true value of transport data and save lives!
Contact

Haris Zia
T +64 3 371 0032
M +64 20 4019 8839
E haris.zia@abley.com
W www.abley.com

Contact the office
T +64 9 974 9820 (Akld)
T +64 3 377 4703 (Chch)
W www.abley.com

Auckland
Level 8,
57 Fort Street
P O Box 911336
Auckland 1142
New Zealand

Christchurch
Level 1 and 2,
30a Carlyle Street
PO Box 25350
Christchurch 8144
New Zealand