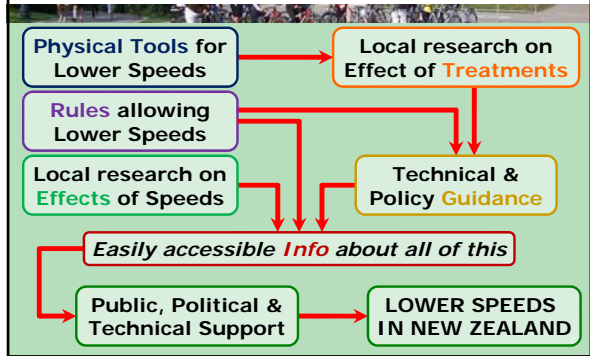


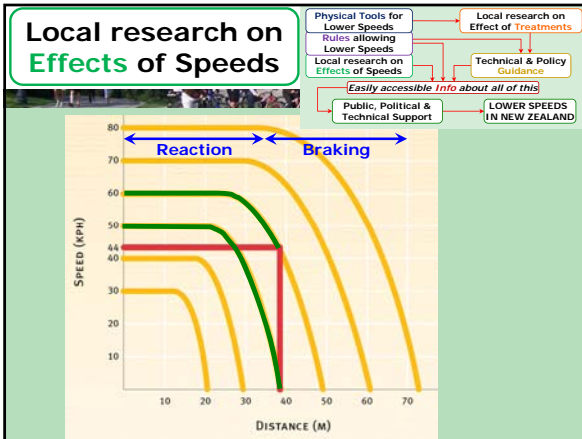
Implementing Lower Speeds in New Zealand



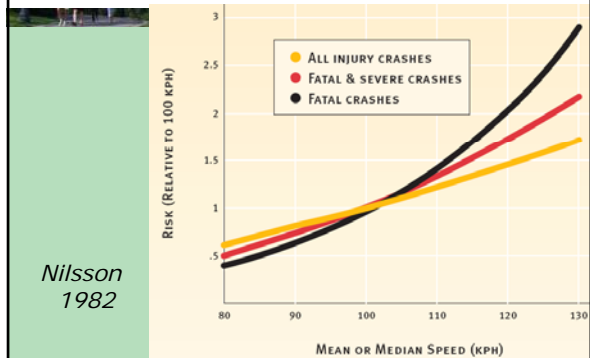
How do we make this Happen?

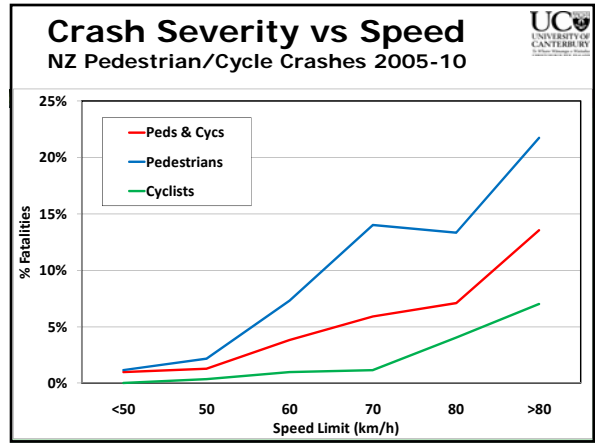
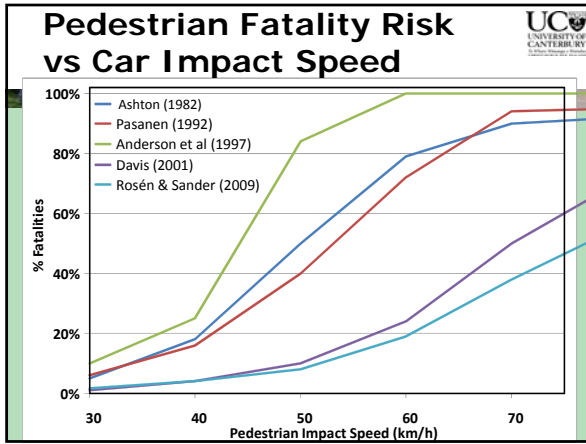


Local research on Effects of Speeds



Effect of Speed on Crash Risk





"Survivable" Speed Limits

- Match speed limits and road environments, based on the potential damage and survivability of a situation:
 - Where **pedestrians and cyclists** are present (e.g. residential areas): **30 km/h**
 - Where **side-on crashes** could occur (e.g. intersections): **50 km/h**
 - Where **head-on crashes** could occur (e.g. overtaking, roadside poles): **70 km/h**
 - Where traffic is **fully protected** from the above dangers: **90 km/h+**

Rules allowing Lower Speeds

NZ Setting of Speed Limits Rule (2003)

- "Speed Limits NZ" rating process

Physical Tools for Lower Speeds → Rules allowing Lower Speeds → Local research on Effect of Treatments → Technical & Policy Guidance → Local research on Effects of Speeds → Easily accessible info about all of this → Public, Political & Technical Support → LOWER SPEEDS (IN NEW ZEALAND)

Developm't Rating Tables

Development type	Frontage development	Rating units
A	Property or access point (Note 1) with 1 or 2 dwellings (Note 2); church; small hall; playground; beach; sports ground; camping ground; holiday cabins; cycle path or pedestrian way that intersects with the roadway	1
B	Property or access point (Note 1) with 3 or 4 dwellings (Note 2); business or office with fewer than ten employees; small shop; large hall; cinema; small public swimming pool	2
C	Property or access point (Note 1) with 5 or more dwellings (Note 2); business or office with 10 to 30	3
D	Business or office with more than 30 employees; large shop; post office; hospital; tertiary education establishment	4
E	Access point (Note 1) serving two or more developments	1 to 4 (Note 3)
F	Primary school or kindergarten	1 for every 15

Also a separate calculation for side-road development

Roadway Rating Tables

Pedestrian facilities	Pedestrian volume less than 200 per day	Pedestrian volume 200 per day or more
	Footpaths behind grass berms or no pedestrian access	0
Footpaths adjacent to roadway	0	1
No footpath but useable shoulder	1	2
Pedestrians must walk on roadway	1	3

Type of roadway	Alignment		
	Open visibility	Average visibility	Limited visibility
Divided carriageway (solid median or barrier) or one way	0	0	0
4 or more lanes (flush median or undivided)	0	1	1
2 or 3 lanes (flush undivided)	1	1	1
1 lane (two way)	1	1	1

Also ratings for cyclists, parking, traffic control and land use

Calculated Speed Limit

SPEED LIMIT SURVEY FORM (RATING DIAGRAM)

ROAD CONTROLLING AUTHORITY: Swan District Council, AT Gladhills
 ROAD: River Rd FROM South TO North
 SURVEYED BY: Eric Jones DATE: 2 / 10 / 2002

No	DEVELOPMENT RATING				ROADWAY RATING				Total
	1	2	3	4	1	2	3	4	
1	2	2	1	-	-	-	-	1	3
2	2	-	-	-	2	-	-	1	3
3	2	3	3	-	2	1	-	4	7
4	2	1	3	-	3	-	-	3	11.7
5	2	1	3	-	3	-	-	3	11.7
6	2	1	3	-	3	-	-	3	11.7
7	2	1	3	-	3	-	-	3	11.7
8	2	1	3	-	3	-	-	3	11.7
9	2	1	3	-	3	-	-	3	11.7
10	2	1	3	-	3	-	-	3	11.7
11	2	1	3	-	3	-	-	3	11.7
12	2	1	3	-	3	-	-	3	11.7
13	2	1	3	-	3	-	-	3	11.7
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96	2	1	3	-	3	-	-	3	11.7
97	2	1	3	-	3	-	-	3	11.7
98	2	1	3	-	3	-	-	3	11.7
99	2	1	3	-	3	-	-	3	11.7
100	2	1	3	-	3	-	-	3	11.7

Average of (Development + Roadway Ratings) per 100m
 e.g. Average rating over this section (650m) is $61.7 / 6.5 = 9.5$

Determining Speed Limits

Similar flowcharts for rural & fringe

e.g. With average rating of 9.5:
 Most appropriate speed limit is probably 70km/h



Can depart from this Calc'd Speed

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Other NZ Speed Initiatives

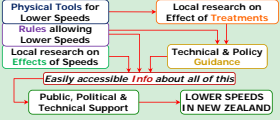

- Rural Speed Zones
 - Typically 70/80/90 km/h instead of 100 km/h
- School Speed Zones
 - 40 km/h Variable Speed Limits
- Low Speed (<50km/h) Zones
 - Only local or minor streets?
 - Observed speeds must match posted

Some issues and limited guidance

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Physical Tools for Lower Speeds

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Urban/Rural Thresholds



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Vertical Deflections Speed Humps



Horizontal Deflections
Two-Lane Chicane (Median)



Surface Treatments
Textured Corner Platform

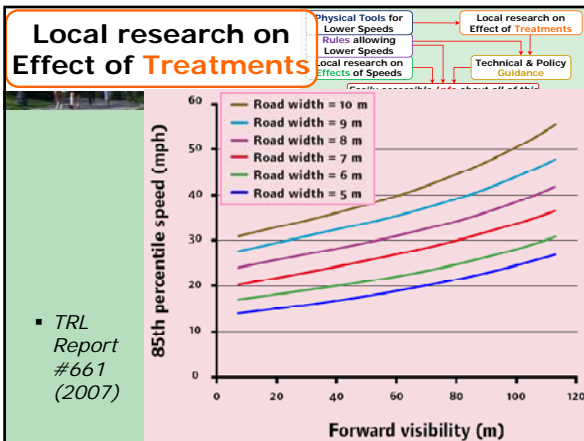


Intersection Controls
Roundabout

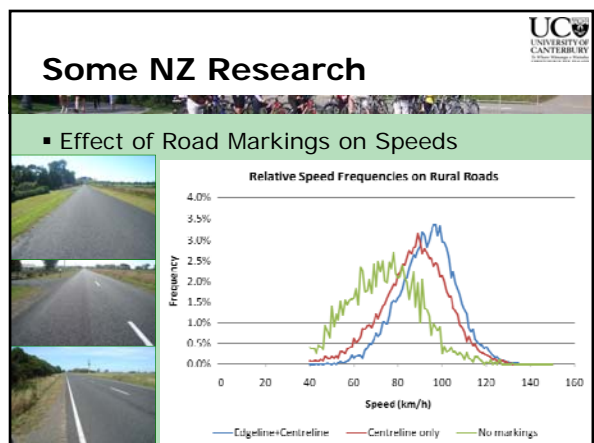


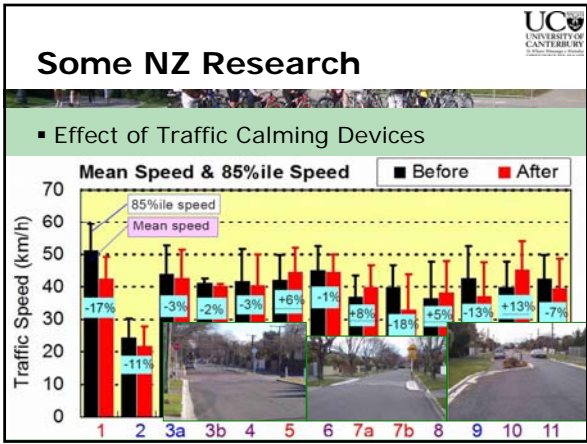
Visual Perception
Countermeasures





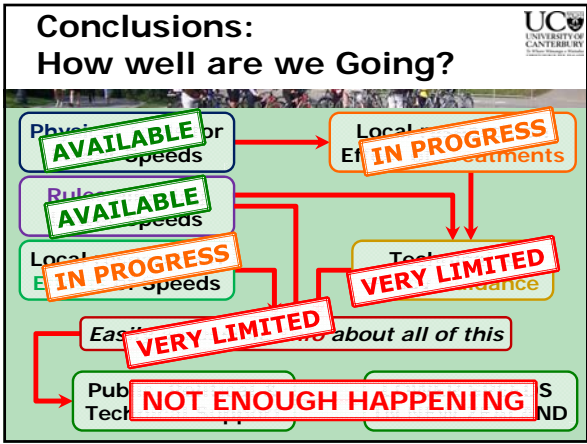
- ### What Influences Driver Speed Choice?
- User Factors**
 - Age, Gender
 - Hazard Perception, Risk Acceptance
 - Vehicle Factors**
 - Engine Power, Steering, Tyres, Brakes
 - Road/Environment Factors**
 - Traffic Density
 - Speed Limits, Enforcement Levels
 - Weather, Road Condition, Lighting
 - Lane Widths, Sight Distances
 - Traffic Management/Calming Devices





- ### Some Common Concerns about Lower Speeds
- UC
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CANTERBURY
- "Reduced Speeds will mean longer travel times"
 - "The average speed is already well below the speed limit"
 - "The public don't want reduced speeds"
 - "Traffic will still travel faster than the proposed speed limit"
 - "We're not like Europe..."





Thank You! Any Questions?

*In memory of
Wayne Osmers*

A photograph of a man with glasses, wearing a light blue button-down shirt and dark trousers, standing outdoors against a background of a blue sky and green hills.