Changing rural speed limits Learning from the past

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TRANSPORT PLANNING AND DESIGN

Road safety this decade

Safer Journeys





Where is the evidence on reducing speeds?

- Plenty of international research on safety effects of speed
- For every 10 km/h posted speed limit reduction, typically we observe a 2-3 km/h reduction in mean speeds

(NB: 1% speed reduction = -2% crashes & -4% fatals)

 Could add some additional traffic mgmt to get the speeds down a bit more





But do New Zealanders believe it?





We don't need to look far for case studies...





Dec 1973: NZ Government's response

- Slower speeds = better fuel economy so …
- 55 mph (88 km/h) became 50 mph (80 km/h) on rural roads









Speeds creep up...

1985

Better cars
Better roads?









Jul 1985: NZ Government's response

- Prevailing speeds had increased
- Government raises speed limit to match



OPUS



Analysing historical data

- Raw data has limitations
 - -Rural vs urban?
 - Observed speeds?
 - Traffic volumes?

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Other safety initiatives?



1973: One year before vs after

SERIOUS CASUALTIES

FATAL CASUALTIES



1973: Effect on all roads 3-years before/after



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FATALITIES



1973 – Other effects and initiatives

- Initial >6 km/h speed drop gradually crept back to ~3 km/h
- Rural traffic volumes flattened \rightarrow no effect on crash rates
- 1972 limited seat belt law, extended in 1975 (-5% of toll?)
- 1973 motorbike helmets mandatory (-4%?)
- Other initiatives had a lesser influence

Reduced speed limit had major impact





1985: One year before vs after



INJURY CASUALTIES

FATAL CASUALTIES



Largest increase is in rural fatalities









1985: Gap between rural and urban crashes



1985: Fatal/injury trend changed in rural areas



1985 – other effects and initiatives

- Mean speeds jumped up 3-4 km/h (cf. 1-2 km/h pa before)
- 1983: 150km-max truck restrictions phased out
- Other initiatives had a limited influence
- 1988-89: A raft of safety measures introduced ('87 peak toll)

Increased speed limit had major impact







Conclusions



Rural fatalities



Rural fatalities rose significantly

Not likely to have wholesale speed limit changes again -But it illustrates the effect of changing localised speed limits





Thank you!

• Any questions?







