



## Update on Tackling Unsafe Speeds package

<b>Reason for this briefing</b>	To outline our proposed way forward on the Tackling Unsafe Speeds programme.
<b>Action required</b>	You are scheduled to discuss this paper with officials next Thursday 6 December.
<b>Deadline</b>	6 December 2016
<b>Reason for deadline</b>	You are scheduled to discuss this paper with officials next Thursday 6 December.

### Contact for telephone discussion (if required)

Name	Position	Telephone	First contact
Brent Johnston	Manager Mobility and Safety	██████████	✓
██████████	Senior Advisor	██████████	
██████████	Advisor	██████████	

### MINISTER'S COMMENTS:

<b>Date:</b>	4 December 2018	<b>Briefing number:</b>	OC181050
<b>Attention:</b>	Hon Julie Anne Genter	<b>Security level:</b>	In confidence

### Minister of Transport's office actions

- Noted*
 *Seen*
 *Approved*
- Needs change*
 *Referred to*
- Withdrawn*
 *Not seen by Minister*
 *Overtaken by events*

## **Purpose of report**

1. This briefing proposes a strawman outline of a way forward on the Tackling Unsafe Speeds programme. We propose that you reset the outcomes for speed management, establish a new regulatory framework for setting of speed limits and adopt a new approach to safety cameras. Officials are due to discuss these proposals with you at a meeting on Thursday 6 December.

## **Executive Summary**

2. Officials have been progressing work on the Tackling Unsafe Speeds programme. As a key part of this work, the Ministry has tested potential options for changes on speed management with the Road Safety Strategy Speed Reference Group (the Reference Group).
3. Based on that work we propose that you:
  - 3.1. reset the outcomes and measures for speed management
  - 3.2. implement a new regulatory framework for speed management and setting speed limits, which includes requiring road controlling authorities (RCAs) to develop speed management plans
  - 3.3. implement a new approach to the safety camera network.

### *Resetting the outcomes and measures for speed management*

4. We propose that you reset the outcomes and measures for speed management, including establishing new:
  - 4.1. long-term outcomes and measures for RCAs to implement ambitious, measurable and justifiable speed management changes. This could form part of the new road safety strategy.
  - 4.2. short-term outcomes and measures for RCAs to implement speed management changes, including moving towards 30 km/h or 40 k/h outside schools, and in central business districts (CBDs) and town centres within three years. This could form part of the new road safety action plan.

### *New regulatory framework*

5. We also propose to develop a new regulatory framework to hold RCAs accountable for implementing these outcomes and measures. Under this framework, RCAs would be required to develop and consult on speed management plans for their regions. The regional plans should outline RCAs' long-term plans for how they will implement speed limit and engineering changes to achieve the Government's short and long-term outcomes for speed management. RCAs would also be required to implement safe and appropriate speed limits when proposing speed limit changes, unless there is good rational not to.
6. We propose that regional plans should be developed for local roads and approved by the NZ Transport Agency against a set of criteria under a revised Speed Management Rule. The NZ Transport Agency should also be required to develop a national plan for state highways that could consider how safety cameras are being placed across the network and what infrastructure investment is being made. This would support an integrated speed management approach.

7. Under this model, we recommend that the NZ Transport Agency's national plan be approved by a new National Speed Management Committee against a set of criteria outlined in the new regulatory framework for speed management. The Committee could include a range of interest groups, such as walking, cycling, motoring, and freight, as well as representatives from central government (such as the Ministry of Transport and NZ Police) and local government. This would ensure transparency and that the NZ Transport Agency is being held to account for implementing the Government's outcomes and measures for speed management across the network.
8. Once the regional or national plans are consulted on and approved, RCAs would implement speed limit changes and register the changes with the NZ Transport Agency. The NZ Transport Agency would be required to keep a public register of speed limits, and have other specified regulatory functions.

#### *New approach to the safety camera network*

9. We propose that you implement a new approach to the safety camera network that largely draws on the 'Swedish approach'. This would mean shifting from the current "anytime, anywhere" enforcement approach to a "no surprises, highly visible" education based approach.
10. This approach aligns with a Vision Zero approach, where we recognise that the main problem is that on a large portion of the network, average travel speeds exceed the speed limit which the roads are designed for. This is due to poor road design, rather than the driver. This approach assumes that road safety is an important priority for most road users. It also recognises that a lack of information or inattention is one of the reasons why some motorists exceed the speed limit.
11. Under this approach, the number of cameras would be increased, but would only be switched on for a proportion of the time. The cameras would be signed and the public informed about why it is important to slow down. This would help to manage the impact on the infringement processing system and the justice sector pipeline. The camera network would also be managed by the NZ Transport Agency as a speed management tool, instead of an enforcement tool used by NZ Police.

#### **Officials have been progressing a range of work on the Tackling Unsafe Speeds programme**

12. Officials have been progressing work on options for encouraging speeds on our roads which are appropriate for the road, and which will reduce death and serious injury.
13. Officials initially began reviewing the Land Transport Rule: Setting of Speed Limits 2017 (the Rule), and the process for setting speed limits and the speed limits outside schools, retirement villages and hospitals, and in CBDs and town centres. However, through the speed reference groups and broader engagement with stakeholders and analysis, we found that bylaw changes alone would not have much impact. We have therefore broadened our analysis to include the entire framework for speed setting.
14. We are also considering making greater use of technology, such as red light cameras and average speed cameras (also know as point-to-point cameras). A range of work is being progressed in this area, including:
  - 14.1. implementing trials of average speed cameras – announcements were made by Minister Nash and Minister Shaw on 5 November 2018 that trials of average speed cameras will commence in 2019 in the Waterview Tunnel and on the Auckland Southern Motorway.

- 14.2. implementing trials of safety camera signage – announcements were made by Minister Nash and Minister Shaw on 5 November 2018 that the NZ Transport Agency will trial two different warning signs that alert drivers before they enter high-risk zones where safe speed cameras are operating. The trial will start in December at eight sites around Auckland and will test whether the signs are effective at encouraging drivers to stay within the speed limit.
- 14.3. working with Auckland Transport (AT) on expanding its red light camera network.
- 14.4. the Road Safety Partnership Programme is establishing an automated compliance programme that will look at developing an expanded safety camera network in 18 months, and a replacement for the Police infringement processing system within three years.
15. Officials have also been undertaking policy work on the overall approach to safety cameras.
16. As part of the Reference Group process for the new road safety strategy, officials have been testing the views of stakeholders on speed management issues. This process ran from September to November 2018. You will receive a separate briefing on the overall outcomes of the reference group process.

#### **What are the problems with the speed setting process?**

17. Our work reviewing the Rule and the discussions with the Reference Group has confirmed there is mixed interpretation (and legal advice) around the approach and interaction of the bylaw process, speed management guide and local government legislation. This contributes to the inconsistent application of the speed limit setting process, including different interpretations of consultation/engagement requirements, and decision making processes.
18. However, it has also become clear this is not the only problem, and that addressing the bylaw issue alone will not address other problems with the speed-setting process. Some of these problems are set out below.
  - a) The current process does not effectively support regional collaboration and approaches. This is important because where roads cross between regional RCAs or with state highways, they need to be considered as a network to ensure consistency and safety (i.e. when reducing speed on one road, it is important to also consider the feeder roads to minimise safety risks).
  - b) The process is prone to political interference and may over-represent a small but vocal minority. This raised questions about whether speed limit setting should be a Council political decision or a different type of decision-making function.
  - c) RCAs (including the NZ Transport Agency) have limited resources and capability to implement speed management changes. This issue is exacerbated by the complexity in the current regulatory requirements, including the consultation/engagement requirements. Overall this makes it difficult for RCAs to make changes.
  - d) More support/guidance is needed around education and engagement approaches.
  - e) There is a lack of transparency and accountability around speed management plans and how they are being rolled out. This includes the NZ Transport Agency and what it is doing on its own network.
  - f) Questions were raised around whether the focus in the GPS on the 10% of highest risk roads is achievable over next three years given RCA resourcing and current regulatory requirements. Concerns were also raised that just focussing on high risk

roads limits RCAs from taking a whole-of-network approach to speed management changes i.e. where RCA's might want to review speed limits in an entire area and get speeds appropriate for those roads, rather than reviewing speed limits on individual roads.

- g) Poor engagement and consultation practice could result in a loss of public support. However, there is a need to achieve a balance between ensuring public engagement and also making appropriate progress. Current processes were believed to be cumbersome and could be more efficient.
- h) We need a conversation on speed management that is broader than just safety, for example, how speed management can support better access and liveable cities, as well as support healthier walking and cycling transport options.
- i) Better consideration is required on the interface between speed limit reductions, cameras and infrastructure changes. Often there is insufficient funding available to invest in signage and other infrastructure treatments to manage down operating speeds in line with the speed limit change. These investments support drivers and the community to adjust to and accept the speed limit changes.
- j) The Speed Management Guide was useful but some people thought it needed to be considered alongside local conditions and a broader network approach. There was also mixed use of the Speed Management Guide. Some of the features in the Guide are not well understood around:
  - Self-explaining roads – corridors where road users already travel at the safe and appropriate speed (usually due to the topography and nature of the road), but where the posted speed limit is out of alignment. These roads are much easier to make speed limit changes on, as drivers are already driving at a slower speed, so a lower limit is self-explaining to the road users, for example a narrow winding rural road. Drivers are not expected to reduce their speed to comply with a lower limit.
  - Travel speeds and graduated speed reductions –
    - The Speed Management Guide suggests that prior to considering and making speed limit reductions on a road, it is important that RCAs understand the actual travel speed of road users. This is useful in establishing how credible a new speed limit will be with the public. It is requirement of the Rule that RCAs aim to achieve mean travel speeds on a road within 10 percent of the posted speed limit. This is because speed limit reductions beyond this will likely lead to significant variability of travel speeds, which increases the risk of collisions occurring.
    - In these cases, graduated reductions of 10 km/h could be used to allow for an adjustment of speed over time. It is likely that this approach will receive less resistance from the public. However, there has been limited understanding and application of this by RCAs, which is largely because the Rule requires RCAs to obtain approval from the NZ Transport Agency before 70 km/h and 90 km/h speed limits can be set on a road (i.e. RCAs are encouraged to use 20 km/h increments for speed limits between 60 km/h and 100 km/h).

19. Overall there was significant ambition in the Reference Group for implementing speed management changes. The Reference Group agreed that a scientific approach which learns from other jurisdictions is important for sustainable change in speed management. However, there were different views around the scale and pace of change that is appropriate and achievable.
20. Given the problems (set out above) people wanted to see a new model that:
  - a) addressed confusion and inconsistency of application of bylaw requirements, the Rule and speed management guide
  - b) encouraged greater accountability, transparency, and consistency around decision making and also more transparency around local and national speed management plans
  - c) enabled more effective regional approaches
  - d) came with sufficient funding and resources to support implementation of speed management changes, both undertaking speed limit reviews, as well as making engineering and other physical changes to the road
  - e) encouraged an evidence based approach that supports public understanding and engagement, including considering use of roads and whether changes are self-explaining
  - f) involved the RCAs local knowledge to support effective implementation and engineering of roads
  - g) provided more efficient ways of undertaking change that still engages with communities and other road users.
21. Some benefits were seen in addressing the bylaw confusion, but generally people believed this would not be sufficient and did not drive accountability for changes.
22. The Reference Group also considered that blanket defaults across the entire network would not achieve sustainable change, as they were unlikely to be bought into and risk being overturned later by subsequent local or national governments.
23. People believed a regional speed management policy which addressed the issues had some merit, but would need further analysis and engagement.
24. We also discussed proposals for changes to speed limits in areas with a high number of active road users with the Reference Group. Overall there was clear and strong support for 30-40 km/h speed limits outside urban schools, with the discretion to use variable 30 km/h speed limits in peak times on arterial routes, with consideration given to speeds in other surrounding roads. There were different views around whether speeds should be set at 30km/h or 40km/h.
25. There was overall support for 60 km/h or 80 km/h speed limits outside rural schools, and potentially using lower variable speed limits where there is high pedestrian risk at school times. However, people were worried that without good signage, going from 100km to 80km or 60km on certain roads would create more safety issues with cars going at a range of unpredictable speeds. This could be exacerbated if 40km variable speeds were added. There was a lot of discussion about the need to understand the roading environment around each school, and looking at whether children currently walk to school on particular roads, and whether they could safely walk to school in future.

26. There was overall support for considering 30 km/h or 40 km/h speed limits in CBDs and town centres where there are high numbers of interactions between road users. The group recognised that lower speed limits in these areas can lead to health and access outcomes and liveable cities. However, there were a number of questions about how to implement this change, including whether addressing these roads should be prioritised over addressing the highest risk roads within a region, and the boundaries of how changes would be applied.
27. The Reference Group also considered applying 30 km/h speed limits outside retirement villages and hospitals. However, there were concerns that 30 km/h is not appropriate in these areas as there is not a consistent or particular time of the day where active mode users are more likely to interact with motor vehicles. We do not recommend changes in these areas.
28. Officials briefed Minister Shaw in October 2018 on the speed limit issues and he agreed to us undertaking a broader review of the speed management process.
29. A strawman outline of a new proposed framework for speed management is attached in ***Annex 1***.
30. There are a number of components of the strawman, but it can broadly be broken into three main areas:
  - 30.1. resetting the outcomes and measures for speed management
  - 30.2. implementing a new regulatory framework for speed management and setting speed limits, which includes requiring road controlling authorities (RCAs) to develop speed management plans
  - 30.3. implementing a new approach to the safety camera network.
31. The key components within each of these broad areas and the rationale for their inclusion is discussed below.

### **Resetting the outcomes and measures for speed management**

32. A key theme across all Reference Groups was the need to set long-term outcomes for safety that were measurable, and that responsible agencies could be held to account for delivering these outcomes.
33. It is clear from our work to date that the goal outlined in the GPS of addressing the top 10 percent highest risk roads has not necessarily been bought into by stakeholders
34. We propose developing a new ambitious, measurable and justifiable 10-year outcome and measure for speed management. It would target network based speed management changes that ensure a significant contribution to road safety outcomes.
35. We also recommend implementing new short-term outcomes and measures for speed management. These would move towards having 30 km/h or 40 km/h speed limits in areas with high numbers of active mode users interacting with motorised traffic. These changes would signal a bold early step towards a Vision Zero framework. The changes would also support broader health and access outcomes.

36. The outcomes and measures should include:
- 36.1. Long term outcomes – we would develop and consult on new 10 year outcomes and measures for road controlling authorities to implement. They would target network based speed management changes that support a significant contribution to road safety outcomes. We have begun work on these already. This could form part of the new road safety strategy.
- 36.2. Short term outcomes – we would develop and consult on new requirements for RCAs to implement speed management changes over a three year period in areas where there are high numbers of active road users interacting with motorised traffic to support safety and health and accessibility benefits. This could form part of the new road safety action plan. The short term outcomes should include:
- 36.2.1. Outside schools move towards 30 km/h or 40 km/h speed limits where safe and road user compliance can be achieved, including:
- (a) Urban schools – implement permanent 30 km/h or 40 km/h speed limits outside schools, with variable speed limits at peak times on roads where there is insufficient interaction between motor vehicle traffic and pedestrians/cyclists at all times of the day or where roads might be an arterial route that still requires higher speeds at other times of the day.
  - (b) Rural schools – potentially requiring RCAs to implement permanent 60 or 80 km/h school zone speed limits (depending on the speed limit on the road leading up to the school), with variable 30 km/h or 40 km/h speed limits at peak times on roads where there is significant interaction between motorised traffic and pedestrians/cyclists. (Note this proposal requires further development.)
- 36.2.2. In central business districts and town centres implementing consistent 30 km/h or 40 km/h speed limits.
37. Road controlling authorities would be held to account for implementing the new outcomes for speed management through the proposed new regulatory requirements that would require the development and approval of speed management plans. This is outlined further in the second half of this briefing.
38. We propose consulting on whether to adopt a 30 km/h or 40 km/h speed limit (permanent and variable) where there are high numbers of active road users interacting with motorised traffic. This is discussed further below.
39. Should the Government agree to consult on these proposals, we would cost what it would take to provide the necessary engineering, signage and other support needed to RCAs to implement the proposed changes (e.g. undertaking speed management outside all schools and central business districts). The funding for these changes would need to be allowed for in the next Government Policy Statement on Land Transport.
40. As part of establishing new long-term outcomes, we also recommend exploring with the NZ Transport Agency opening up its speed mapping tool to expert scrutiny and the public. We believe this is an important part of achieving buy-in to speed management changes and the long-term outcomes.



*Should we set speed limits at 30 km/h or 40 km/h?*

41. There was considerable support from the Reference Group for lower speed limits in areas where there are high numbers of active mode users, including outside schools and in CBDs and town centres. However, there was no consensus on whether a 30 km/h or 40 km/h speed limit is most appropriate.
42. When taking a safe system approach to setting speed limits (where the forces on the human body are below the general survivability threshold), 30 km/h is regarded as the maximum recommended speed limit in areas where vulnerable users and motorised traffic interact.
43. Overall, the research notes that 30 km/h is generally considered appropriate in built up areas where active road users and motor vehicle traffic share the same space. This is reinforced in the International Transport Forum's (ITF) 2018 report on speed and crash risk. However, the ITF still notes that when working towards a safe system, 30 km/h or 40 km/h speed limits could be appropriate in these areas.

*Schools*

44. The Speed Management Guide and Safer Journeys for Schools Guide encourage:
  - 44.1. 40 km/h variable speed limits where a significant pedestrian risk exists, but where the risk is not continuous. This generally applies outside urban schools.
  - 44.2. 60 km/h variable speed limits where there is an identified turning traffic risk. This generally applies outside rural schools, where speed limits otherwise tend to be 100 km/h. In these areas, RCAs are also encouraged to build traffic bays off the main roads to reduce any pedestrian risks.
45. Despite the current guidance, default speed limits remain in place outside the majority of schools in New Zealand.
46. 40 km/h was chosen because it was considered to represent the balance between safety, efficiency and credibility. There was also a desire to see speed limits reviewed in the broader catchment area around schools rather than just focusing on the speed limit on the road directly outside the entrance to a school. This is because reducing speed limits on roads directly adjacent to a school does not necessarily address safety concerns between a child's home and the child's school. It was considered that 40 km/h might be appropriate for a residential area, but it was unlikely that 30 km/h would achieve good levels of compliance or be accepted by communities in wider residential areas.
47. Other jurisdictions have taken different approaches to speed limits outside schools. For example, in Calgary and Saskatoon (both Canada), 30 km/h variable speed limits are in effect at specific times of the day when children are expected to be present. In most Australian states, 40 km/h variable speed limits are applied on roads outside schools that have a permanent speed limit of 70 km/h or less, and 60 km/h variable speed limits on roads that have a permanent speed limit of 80 km/h or more. In many cities in the UK, permanent 20 mph (32 km/h) speed limits have been implemented outside schools.

*CBDs and town centres*

48. While the risk to pedestrians is the same whether the area in question is a school, residential area, CBD or town centre, generally in CBDs and town centres there is greater consistent interaction between active mode users and motorised traffic. This makes it easier to put in place lower credible speed limits in these areas.

49. The Speed Management Guide encourages 30 km/h speed limits in areas where there are high volumes of cyclists/pedestrians, such as in CBDs and town centres. However, most CBDs across New Zealand have speed limits higher than 30 km/h. There are some exceptions, for example Queen Street, (Auckland), Courtenay Place (Wellington), and large parts of the Christchurch CBD have 30 km/h speed limits which are supported by traffic calming features.
50. The application of 30 km/h speed limits in urban residential areas is considered best practice in many jurisdictions, including in Europe. Based on numerous international case studies, there have been significant road safety benefits as a result of a widespread introduction of 30 km/h in urban residential areas, including in CBDs and town centres<sup>1</sup>.

*Stakeholders' views*

51. We expect that 30 km/h may still be challenged by some stakeholders and the public, as has been seen with proposed changes to CBD speed limits in Auckland, Wellington and Christchurch.
52. The New Zealand Automobile Association (AA) agrees that 30 km/h is considered the safe and appropriate speed limit in areas where motorised vehicles and a high number of vulnerable road users share the same space, such as in CBDs. However, the AA has strong views about when 30 km/h should be applied, and ensuring that travel speeds can be managed to that level in practice. This is an important consideration particularly around schools, where in some instances the level of traffic interactions only occur at certain times of the day.
53. Other stakeholders fully endorse 30 km/h speed limits, particularly around schools, such as NZ School Speeds. There has also been demand for 30 km/h speed limits (variable and permanent) from a number of councils or communities in the past, including the Dunedin City Council who are currently actively pursuing such changes.
54. The AA also has concerns about ensuring the data being relied on is accurate. You will be aware that the AA has recently written to the Ministry of Transport and AT, raising concerns that some of the data that AT was relying on overestimates the fatality risk at different impact speeds, and could therefore be misleading to the public.
55. We are aware that more modern studies show pedestrians' risk at different impact speeds is lower compared to some older studies. This is likely a result of more vehicles today having better safety features, as well as improvements in emergency care over time which has increased the survivability of patients in vehicle crashes.
56. Numerous other studies have been conducted which have investigated the casualty risk for pedestrians at different impact speeds. However, an initial review of relevant literature has shown that there is considerable variability between studies. This variability was due to different methodologies being used in each study, the variables that were accounted for in each study, when it was conducted, and whether it considered fatality risk or injury risk.

---

<sup>1</sup> In 1992, Graz (the second largest city in Austria) became the first city in Europe to introduce a city wide 30 km/h zone. Approximately 80 percent of city streets in Graz now have permanent 30 km/h speed limits, which resulted in a 24 percent reduction in serious injuries on the city's roads within the first six months alone.

A UK study found that the introduction of 20 mph zones in cities (32 km/h) over a twenty year period from 1986–2006 was associated with a 46.3 percent reduction in deaths and serious injuries for users of all modes and ages.

57. The Ministry is currently reviewing this data. Based on our initial analysis, it is clear that the majority of studies have consistently shown a 30 km/h impact speed to be the maximum speed that the majority of people will survive if hit by a vehicle at this speed (particularly vulnerable users such as the elderly being hit by a medium sized vehicle, which is what we understand the Wramborg Curves, which AT is using, represents). In **Annex 2**, we have included the Wramborg Curves, the curve from the Vision Zero Academy based on studies from the 1980s, and pedestrian serious injury and fatality risk curves from a literature review of more modern studies. This illustrates the variability in these studies.
58. Given these considerations, we suggest that you consult on whether to adopt 30 km/h or 40 km/h, rather than taking a final decision now. Prior to consultation, we will work jointly with AT, the AA and the NZ Transport Agency to undertake a further analysis of the literature and to finalise our views on the evidence base.

### **Establishing a new process for speed management through a new regulatory framework**

59. Alongside resetting the outcomes and measures for speed management, we also suggest you establish a new regulatory framework for speed limit setting. The new framework would hold RCAs (including the NZ Transport Agency) to account for implementing the Government's new outcomes, which does not occur in the current system. It would also establish a more integrated approach to speed management that ensures speed limits, engineering and enforcement are all considered holistically. It would reframe, but not remove, consultation requirements. It would remove the bylaw making requirements.
60. We suggest a new regulatory framework that includes the following key components:
- 60.1. RCAs must develop speed management plans every six years. Plans must set out speed management changes for the next 10 years, allowing for variations every three years (in line with timeframes for developing regional land transport plans under the GPS).
- RCAs (excluding the NZ Transport Agency) must develop regional speed management plans that outline the speed limit reductions and speed management investment (e.g. signage, and engineering changes) it proposes to make over the period.
  - The NZ Transport Agency must develop a national speed management plan for state highways. As well as meeting the requirements for speed management plans, the national plan must include any proposals for safety cameras, and consider how speed limits, signage, infrastructure changes, the safety camera network, enforcement and regional plans align to address the Government's outcomes. The national plan must also outline how the NZ Transport Agency will support RCAs with engagement and communications material to enable speed management changes.
  - Regional and national plans must outline how they align with one another, particularly where there are roads that interact or run adjacent to one another in different regions or where state highways run through a region.
- 60.2. Speed management plans
- Speed management plans must take a 'whole of network' approach. They should consider speed limit setting and engineering up of roads to support speed limit changes, and where strategically important roads will be engineered up to current or higher speed limits.

- Speed management plans must be consistent with and contribute to the Government's outcomes outlined in the new road safety strategy, action plan and GPS.
- Speed limit changes must align with the safe and appropriate travel speeds outlined in the NZ Transport Agency mapping tool, unless there is good rationale not to (based on specific criteria – see strawman in **Annex 1** for further details).
- NZ Transport Agency must keep the safe and appropriate travel speeds up-to-date. They should also advise RCAs of the areas they need to address to meet the Government's new outcomes, including keeping specified data inputs up-to-date.
- Speed management plans must be consulted on to ensure robust analysis and local knowledge is accounted for.
- Speed management plans must outline how they will be implemented and the costs of implementation.

60.3. Speed management plans must be submitted for approval

- Regional plans must be approved by the NZ Transport Agency against the criteria set out in the speed management regulatory framework.
- The national speed management plan must be approved by a newly established speed management committee against the criteria set out in the speed management regulatory framework. The committee should include a range of interest groups, such as walking, cycling, motoring, and freight. It could also include representatives from central government (such as the Ministry and NZ Police) and local government representatives.

60.4. Speed limits must implemented by RCAs in line with the approved plan and registered with the NZ Transport Agency.

60.5. The NZ Transport Agency would be given specific regulatory functions, including:

- providing guidance to RCAs on how to develop and implement regional plans
- keeping up-to-date the safe and appropriate travel speeds analysis and ensuring that it reflects the Government's outcomes
- providing the safe and appropriate travel speeds information to RCAs
- providing supporting communication resources to RCAs for consultation and engagement with the public on speed management changes
- approving regional speed management plans
- providing a public register of speed limits that is kept up-to-date
- potentially publishing up-to-date maps of the recommended safe and appropriate speeds.

61. This new regulatory framework would be established through a combination of changes to the Land Transport Management Act, the Land Transport Act and the Rule.

62. We would also like to consider how to encourage greater regional approaches. We recommend undertaking targeted consultation on whether to move to speed management planning being entirely a function of regional territorial authorities and regional land transport committees, as opposed to local and district authorities. We suggest that we seek feedback about the capacity and capability of the different authorities to undertake these functions.
63. Our proposed new regulatory framework will address the issues we have identified through the Rule review and our discussions with the Reference Group.

### **New approach to safety cameras**

64. New Zealand currently adopts the standard enforcement approach to safety cameras. It assumes that a large proportion of drivers are continuously exceeding the speed limit and thereby creating road safety problems. It is based on the idea that speeding is a deliberate offence in which a rational individual wants to drive as fast as possible and is prepared to calculate the costs and benefits of his or her behaviour.
65. The main purpose is to create a feeling amongst drivers that speeding can be detected at any time, and in any place, on the network. By using this approach, it is assumed that a large number of drivers will be deterred from speeding. It is also assumed that excessive speeds and the average speed will decrease, which in turn will lead to a reduction in the number of fatalities and injuries on the road. This approach fits with the traditional approach to road safety, whereby the blame sits with the driver for exceeding the speed limit.
66. Conversely, Sweden has adopted a new approach which recognises the main problem is that on a large portion of the network, average travel speeds exceed the speed limit which the roads are designed for. Under this approach, it is assumed that road safety is an important priority for most road users, and that a lack of information or inattention regarding traveling at the speed limit is one of the reasons why some motorists exceed the speed limit.
67. The main purpose of the 'Swedish approach' is to support and create a new social norm amongst drivers that it is easier and better to follow the speed limit. The main chain of influence is to inform drivers where safety cameras are located through signage and global positioning systems. The assumption is that most people will slow down if a camera is sign-posted. Consequently, excessive speeds and average travel speeds will decrease, which in turn will lead to a reduction in the number of fatalities and injuries on the road.
68. This kind of approach has had a much higher level of public acceptance in Sweden, as drivers do not feel persecuted or consider it to be a revenue gathering exercise. This also has other spill-over benefits to how people view safety.
69. The 'Swedish approach' has been successful in reducing death and serious injuries. The camera network was expanded in 2006. It was estimated that one to two years after the new cameras were installed in Sweden, the number of death and serious injuries on these sections of the network reduced by approximately 20 percent. The average speed decreased by approximately 5 percent, and the proportion of drivers who exceeded the speed limit decreased by approximately 35 percent.

70. When considering a move to the 'Swedish approach', we would recommend the following changes be made:

	Current approach	New approach
<b>Visibility and location of cameras</b>	Often mobile, posted mainly in urban areas and sometimes concealed.	Well sign-posted, advanced warning, used more in rural areas, but also in urban areas.
<b>Public messaging</b>	Communication/advertising focused on emotional messaging about road safety.	Communication/advertising focused on explaining purpose of the cameras, why they are in located in certain places on the network, and how they work.
<b>Number of cameras and operating times</b>	Relatively small coverage of the network – 1.5 per 100,000 people. Cameras are always switched on at the roadside.	Greater coverage of the network – Sweden has approximately 12 per 100,000 people (though exact numbers are yet to be determined). Cameras are only switched on a proportion of the time (i.e. in Sweden, cameras are switched on less than 5 percent of the time).
<b>Threshold on cameras</b>	NZ Police set threshold at its discretion, often at 10 km/h but can be lower.	Lower threshold (between 3 and 5 km/h) to allow for measurement error, but encourages compliance with speed limits.
<b>Processing system</b>	As cameras are switched on all the time, it requires a larger back office processing system and has a greater impact on the justice pipeline when there are unpaid fines.	Because of advanced warning, and the fact cameras are only on a smaller proportion of the time, a much smaller processing unit is required and there are smaller impacts on the justice pipeline.
<b>Ownership of the network and infringement processing</b>	NZ Police – making it an enforcement function.	NZ Transport Agency – allowing for better alignment with other speed management tools available to the roading agency.

71. The Reference Group was generally supportive of the Swedish approach, but there were some mixed views and questions regarding how it could be applied in New Zealand.
72. One aspect of the Swedish approach that we do not recommend pursuing is requiring the driver rather than the vehicle owner to pay the safety camera infringement fee. Instead, we suggest maintaining our current approach whereby infringements are issued to the vehicle owner. A vehicle owner can then complete a 'transfer of liability' if he or she did not commit the offence. While we agree that it is appropriate for the driver of the vehicle to pay a safety camera infringement fee, to ensuring correct identification of the driver is a very costly process in most circumstances.
73. One matter that we propose to explore further which is not part of the Swedish approach is whether safety camera infringements could be issued instantly (or within much quicker timeframes than currently) to provide real time feedback to drivers. This would take some time to implement, and could be enabled through things like driver on-line licensing (connected to the Driver Licensing Rule changes currently being considered). The Reference Group was supportive of looking into this further.
74. There was support from the Reference Group to get a better understanding of the demographic that is currently receiving the majority of speed-related infringement offences in New Zealand. There was also some support for considering higher infringement fees for speed-related offences given drivers would have more warning of where cameras were on the network.

75. We are proposing moving the ownership of the safety camera network and infringement processing from NZ Police to the NZ Transport Agency. We believe that this aligns better with the overall new approach, where safety cameras are one speed management tool to aid driver understanding of road safety risks and why it is important to comply with speed limits. This approach allows the roading agency to also consider what speed management tool might represent the best value-for-money investment for managing safety risks on a particular stretch of roads.
76. We are not proposing to move camera ownership to each individual road controlling authority. We believe there are significant benefits in maintaining a single national owner of safety cameras, who can consider the overall national risks to the network and achieve economies of scale. Shifting ownership to each local RCA also has a range of other issues, in particular issues with equity between regions.
77. The details of how any policy decisions will be implemented on the safety camera network will need to be developed further with the NZ Police and NZ Transport Agency. They will also need to feed into the work being undertaken by the Road Safety Partnership on the development of a new automated compliance programme.

#### *Safety camera penalties and demerits*

78. The introduction of demerit points for safety camera offences was discussed with the Reference Group. Some individuals were in favour as an extra deterrent, while others thought that it would be difficult to implement without more instantaneous ticketing. There were also concerns about the social impacts of demerits on those which rely on driving for work.
79. The Reference Group also discussed whether infringement fees for speeding offences should be increased, given the relative low level of fees for these offences in New Zealand, compared to other jurisdictions. Again, there were a wide range of views on these changes.
80. The Ministry will consult on these issues as part of the speed package but any changes will also be aligned to proposals on the broader review of offences and penalties we are undertaking.

#### *Hypothecation of safety camera revenue*

81. Officials discussed hypothecation of safety camera revenue with the Reference Group. Hypothecation of safety camera revenue has also been raised by a number of other stakeholders, in particular councils.
82. Generally, councils discussed the hypothecation of safety cameras alongside shifting ownership of the cameras to councils. Safety camera revenue was seen as a mechanism to incentivise councils to implement safety cameras in their region. However, councils noted that they currently have to pay for the cameras, but the ongoing operation of the cameras still sits with NZ Police. Given councils have to pay for the cameras but do not receive the revenue, they noted that the business case for investing is difficult to justify, compared to other investments. NZ Police back office limitations also restrict their investment.
83. Overall there were a wide range of views on hypothecation of safety camera revenue. Some believed it will help minimise concerns from the public about revenue raising from safety cameras, while others disagreed. The group noted that in some cases internationally, reliance on safety camera revenue by local authorities drove perverse incentives.
84. Some individuals in the Reference Group suggested that revenue from safety cameras should be used to support wider road safety projects, such as in local schools.

85. As noted above, we are not proposing to move safety camera ownership to all local RCAs. We note that hypothecation may be suggested as a solution to concerns about funding for speed management and transport projects by local RCAs more generally. We do not believe that hypothecation of safety camera revenue (particularly in itself), is likely to be the best solution to funding concerns from local RCAs. We are considering a range of funding and regulatory issues in relation to land transport. We suggest that hypothecation of safety camera revenue should be considered as part of broader work on funding mechanisms. We propose noting this as part of the consultation process, rather than consulting on this issue specifically.

### **Next steps**

86. We recommend that you discuss the proposed strawman outline with officials at our scheduled meeting with you on 6 December 2018. If you are comfortable with the direction of travel outlined, we would then work this option into a draft discussion paper and Cabinet paper for your consideration in late January 2019. You could first test this with your colleagues at the next Road Safety Strategy Ministerial Advisory Group meeting in February 2019, and then take it to Cabinet in late February. This will be part of a package of Cabinet papers on safety and emissions related work.
87. We note in particular that the safety camera proposals requires additional discussions with NZ Police and the Minister of Police. The proposed changes will also need to feed into the work being undertaken by the Road Safety Partnership on the development of a new automated compliance programme, and the overall ownership of the back office processing of the infringement system and camera network.
88. We would suggest a six week consultation process across March and April 2019, with final policy decisions agreed by Cabinet in June 2019. This would allow you to introduce legislation to support these changes in the second half of 2019.

### **Recommendations**

89. The recommendation is that you:
- (a) **discuss** this briefing with officials at the scheduled meeting on 6 December 2018. Yes/No

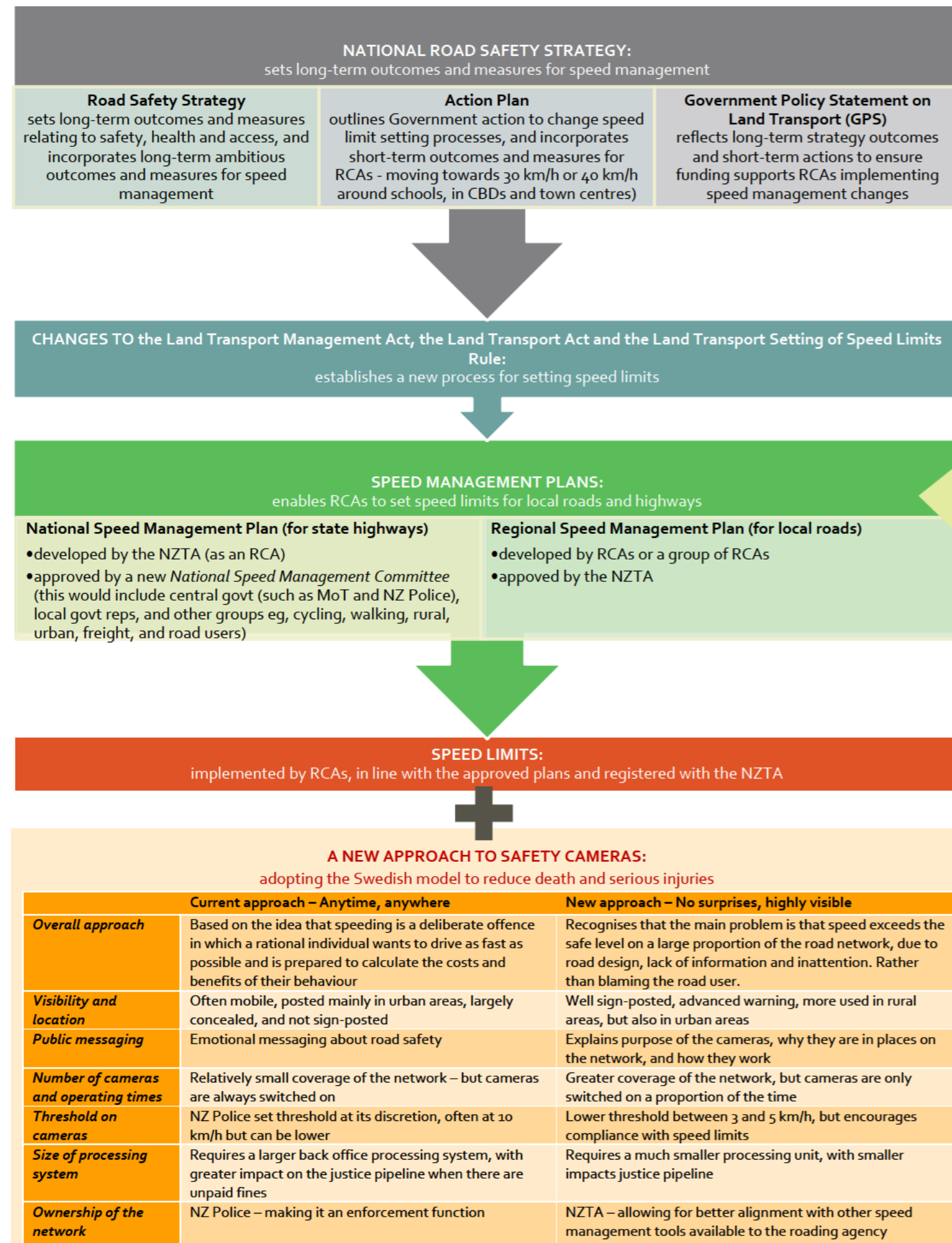
Brent Johnston  
**Manager, Mobility and Safety**

**MINISTER'S SIGNATURE:**

**DATE:**



# ANNEX 1: STRAWMAN: Tackling Unsafe Speeds Programme – PROPOSED CHANGES FOR SPEED MANAGEMENT



## WHAT ARE SPEED MANAGEMENT PLANS?

*Speed management plans are 10 year plans, to be developed and submitted every 6 years, with allowance for variation every 3 years in line with the development of regional land transport plans. Variations could also be made in intervening periods if required.*

### Speed management plans must:

- **take a whole of network approach, consider speed limits and engineering changes in the relevant region, outlining:**
    - speed limit changes proposed for the region over the relevant time period
    - engineering changes to support speed limit changes, including where roads will be engineered up on strategically important routes
    - how speed limit changes and engineering changes will operate in tandem to manage safety risks, while maintaining network efficiency
    - consideration of connecting roads or similar areas where a particular priority road or area is being considered
  - **address Government outcomes** outlined in the road safety strategy, action plan and GPS
  - **align with the safe and appropriate travel speed (SAAS), unless Government outcomes have specified an alternative speed, or there is a good rationale not to, such as:**
    - adjustments to the boundaries of the application of a speed limit to support network management or safety
    - where land use or local circumstances have changed
    - where speed limits may need to be smoothed or take a network-based approach to support network management or safety (that is not accounted for in the SAAS)
    - where consultation identifies an effect on road users (that is not accounted for in the SAAS)
    - where, due to the function of the road, it is more appropriate to make engineering improvements to retain current speed limits
    - where the SAAS is considerably different from current mean travel speeds, incremental/transitional reductions in the speed limit could be considered
  - **be consulted on by RCAs** to ensure robust analysis and local knowledge is accounted for (especially any effects on road users or communities not included in the analysis that went into the plan)
  - **outline how they will be implemented** (eg, sequence, time period, and costs), as well as proposed approaches to engineering changes, signage and information campaigns, and how affected users would be notified
- In addition:**
- the **national plan for state highways** should cover any proposals for the safety camera network over the period; how speed limits, infrastructure, safety cameras, enforcement and regional plans will work together to address speed management risks; and interactions with regional speed management plans
  - **regional plans** should cover interactions with the national speed management plan and the regional plans of adjacent regions

### Supporting RCAs to develop and implement their regional plans by:

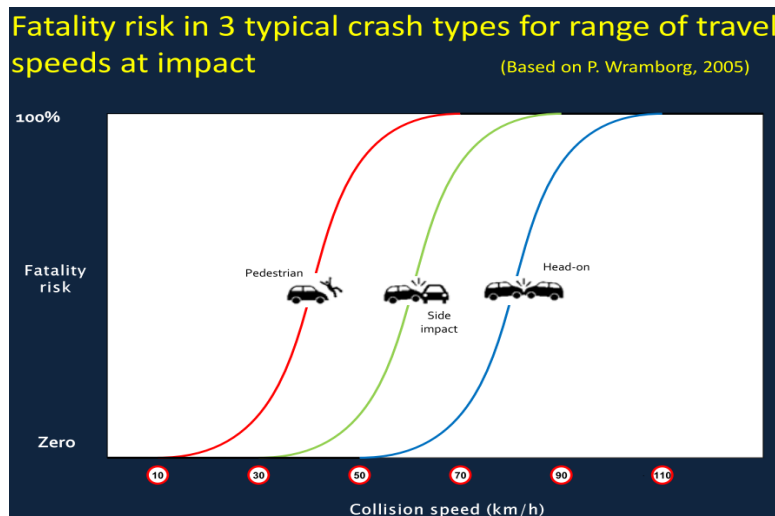
- Providing guidance to RCAs on how to develop and implement regional plans.
- Keeping up to date the safe and appropriate travel speeds analysis and ensuring that it reflects the Government's outcomes.
- Provide supporting communication resources to RCAs for consultation and engagement with the public on speed management changes.
- Provide a public register of speed limits that is kept up-to-date, and potentially publishing up-to-date maps of the recommended safe and appropriate speeds.

### Approving regional speed management plans, against the criteria specified above Managing the safety camera network, in line with the new Swedish approach

**NZTA WILL HAVE NEW REGULATORY FUNCTIONS**

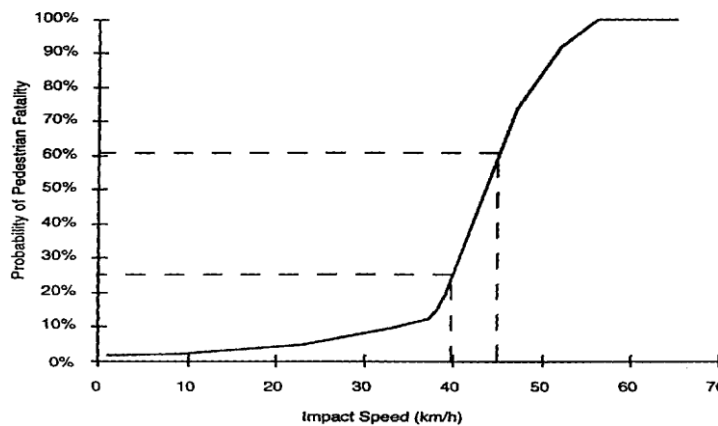
## Annex 2 – Risk of pedestrians’ risk of death and serious injury at different impact speeds

The Wramborg curves (from 2005) presented on Auckland Transport’s website:



The curve from the Vision Zero Academy (based on studies from the 1980s):

**Figure 2: Probability of Pedestrian Fatality by Impact Speed.**  
Derived from the Interdisciplinary Working Group for Accident Mechanics (1986) and Walz, Hoefliger and Fehlmann (1983)



Death and serious injury risk curves from a literature review of more modern studies (this illustrates the variability in these studies):

