

Walk21 - 2014

# Pedestrian Safety – can we handle the next phase

Dick van den Dool

dvd@gta.com.au

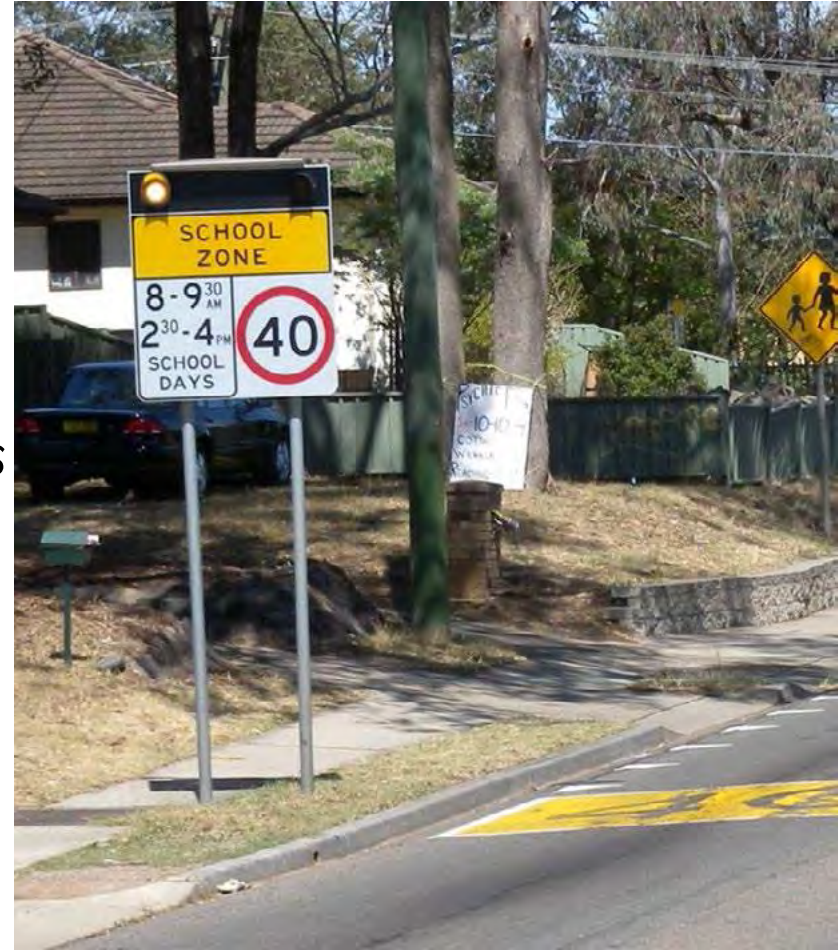
Soames Job

21-23 October 2014

13S1104500

# Outline

- **Data, Data, Data**
- We know what to do
- We've done great things
- BITRE's sober warning
- Next Phase - *nannys or champions*
- **Wegman's Legacy**
- **Action Plan**



# Data, Data, Data

| Population     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                             |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------------|
|                | 1993      | 1994      | 1995      | 1996      | 1997      | 1998      | 1999      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012                        |
| NSW            | 6,005     | 6,060     | 6,127     | 6,205     | 6,277     | 6,339     | 6,411     | 6,486     | 6,575     | 6,629     | 6,672     | 6,707     | 6,756     | 6,816     | 6,885     | 6,976     | 7,070     | 7,145     | 7,211     | 7,306                       |
| AU             | 17,667    | 17,855    | 18,072    | 18,311    | 18,518    | 18,711    | 18,926    | 19,153    | 19,413    | 19,651    | 19,895    | 20,127    | 20,395    | 20,688    | 21,015    | 21,499    | 21,955    | 22,298    | 22,618    | 22,647                      |
| DK             | 5,189     | 5,206     | 5,233     | 5,263     | 5,285     | 5,304     | 5,322     | 5,340     | 5,359     | 5,376     | 5,391     | 5,405     | 5,419     | 5,437     | 5,461     | 5,494     | 5,523     | 5,548     | 5,571     | 5,505                       |
| NL             | 15,290    | 15,383    | 15,459    | 15,531    | 15,611    | 15,707    | 15,812    | 15,926    | 16,046    | 16,149    | 16,225    | 16,282    | 16,320    | 16,346    | 16,382    | 16,446    | 16,530    | 16,615    | 16,693    | 16,778                      |
| UK             | 57,719    | 57,866    | 58,019    | 58,167    | 58,317    | 58,487    | 58,682    | 58,893    | 59,108    | 59,326    | 59,566    | 59,831    | 59,408    | 59,751    | 60,137    | 60,540    | 60,927    | 61,344    | 61,761    | 63,209                      |
| USA            | 259,919   | 263,126   | 266,278   | 269,394   | 272,647   | 275,854   | 279,040   | 282,162   | 284,969   | 287,625   | 290,108   | 292,805   | 295,517   | 298,380   | 301,231   | 304,094   | 306,772   | 309,330   | 311,592   | 316,266                     |
| All Fatalities |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                             |
|                | 1993      | 1994      | 1995      | 1996      | 1997      | 1998      | 1999      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012                        |
| NSW            | 581       | 647       | 620       | 581       | 576       | 556       | 577       | 603       | 524       | 561       | 539       | 510       | 508       | 496       | 435       | 374       | 453       | 405       | 364       | 369                         |
| AU             | 1,953     | 1,928     | 2,017     | 1,970     | 1,767     | 1,755     | 1,764     | 1,817     | 1,737     | 1,715     | 1,621     | 1,583     | 1,627     | 1,598     | 1,603     | 1,437     | 1,488     | 1,352     | 1,277     | 1,310                       |
| DK             | 559       | 546       | 582       | 514       | 493       | 499       | 514       | 498       | 431       | 463       | 432       | 369       | 331       | 306       | 406       | 406       | 303       | 255       | 220       | 167                         |
| NL             | 1,252     | 1,298     | 1,334     | 1,251     | 1,235     | 1,149     | 1,186     | 1,166     | 1,083     | 1,066     | 1,088     | 881       | 817       | 811       | 791       | 750       | 720       | 640       |           |                             |
| UK             | 3,814     | 3,650     | 3,621     | 3,598     | 3,599     | 3,421     | 3,423     | 3,409     | 3,450     | 3,431     | 3,508     | 3,221     | 3,201     | 3,172     | 2,946     | 2,538     | 2,222     | 1,850     | 1,901     | 1,754                       |
| USA            | 40,115    | 40,676    | 41,798    | 42,063    | 42,013    | 41,501    | 41,717    | 41,945    | 42,196    | 43,005    | 42,884    | 42,836    | 43,510    | 42,708    | 41,259    | 37,261    | 33,808    | 32,999    | 32,367    | 34,600                      |
| Ped Fatalities |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                             |
|                | 1993      | 1994      | 1995      | 1996      | 1997      | 1998      | 1999      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012                        |
| NSW            | 117       | 129       | 130       | 130       | 114       | 102       | 108       | 110       | 88        | 94        | 94        | 85        | 96        | 72        | 68        | 49        | 59        | 59        | 49        | 55                          |
| AU             | 331       | 367       | 398       | 351       | 328       | 318       | 299       | 287       | 290       | 249       | 232       | 220       | 226       | 228       | 204       | 189       | 194       | 170       | 185       | 174                         |
| DK             | 133       | 94        | 118       | 68        | 87        | 73        | 82        | 99        | 50        | 64        | 49        | 43        | 44        | 60        | 68        | 58        | 52        | 44        | 33        |                             |
| NL             | 132       | 132       | 132       | 132       | 132       | 133       | 130       | 114       | 115       | 108       | 107       | 77        | 89        | 73        | 91        | 62        | 68        | 72        |           |                             |
| UK             | 1,241     | 1,124     | 1,038     | 997       | 973       | 906       | 870       | 857       | 826       | 775       | 774       | 671       | 671       | 675       | 646       | 572       | 500       | 405       | 453       | 420                         |
| USA            | 5,649     | 5,489     | 5,584     | 5,449     | 5,321     | 5,228     | 4,939     | 4,763     | 4,901     | 4,851     | 4,774     | 4,675     | 4,892     | 4,795     | 4,699     | 4,414     | 4,092     | 4,280     |           |                             |
| All Injuries   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                             |
|                | 1993      | 1994      | 1995      | 1996      | 1997      | 1998      | 1999      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012                        |
| NSW            | 26,368    | 26,160    | 25,963    | 26,029    | 24,454    | 26,415    | 26,748    | 28,812    | 29,913    | 28,447    | 27,208    | 26,323    | 25,209    | 25,439    | 25,845    | 24,048    | 24,106    | 24,623    | 26,366    | 22,932 all treated injuries |
| AU             | 31,170    | 33,356    | 34,354    | 33,703    | 32,583    | 31,111    | 29,639    | 28,166    | 26,694    | 28,440    | 27,526    | 28,782    | 29,850    | 31,204    | 32,777    | 32,543    | 34,116    | 33,022    | 33,802    | 33,713 serious injuries     |
| DK             | 9,930     | 9,757     | 9,991     | 9,711     | 9,395     | 9,175     | 9,393     | 9,092     | 8,465     | 8,791     | 8,412     | 7,546     | 6,588     | 6,515     | 6,657     | 5,923     | 4,947     | 4,153     | 4,039     | 3,611 all injuries          |
| NL             | 17,666    | 18,139    | 18,265    | 17,719    | 18,154    | 16,713    | 17,552    | 16,508    | 16,014    | 16,089    | 16,519    | 16,180    | 15,997    | 15,424    | 16,643    | 17,607    | 18,576    | 19,100    | 20,100    | 19,200 MAIS 2+              |
| UK             | 302,321   | 311,709   | 307,066   | 316,980   | 324,204   | 321,791   | 316,887   | 318,874   | 309,859   | 299,174   | 287,099   | 277,619   | 267,816   | 255,232   | 244,834   | 228,367   | 219,924   | 206,798   | 202,049   | 193,969 all injuries        |
| USA            | 3,358,772 | 3,266,284 | 3,464,183 | 3,482,935 | 3,347,987 | 3,192,499 | 3,236,283 | 3,188,750 | 3,032,672 | 2,925,758 | 2,888,601 | 2,788,378 | 2,698,976 | 2,574,664 | 2,490,533 | 2,345,737 | 2,217,275 | 2,239,074 | 2,217,000 |                             |
| Ped Injuries   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                             |
|                | 1993      | 1994      | 1995      | 1996      | 1997      | 1998      | 1999      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012                        |
| NSW            | 3,091     | 3,220     | 3,154     | 3,234     | 2,985     | 3,150     | 3,024     | 2,979     | 2,861     | 2,607     | 2,490     | 2,301     | 2,220     | 2,126     | 2,119     | 2,085     | 1,933     | 1,871     | 1,862     | 1,696 all treated injuries  |
| AU             |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                             |
| DK             | 1,022     | 1,010     | 1,033     | 894       | 922       | 892       | 845       | 846       | 762       | 779       | 707       | 674       | 568       | 601       | 580       | 497       | 442       | 429       |           | all injuries                |
| NL             | 1,488     | 1,464     | 1,271     | 1,430     | 1,237     | 1,276     | 1,298     | 1,182     | 1,172     | 1,082     | 1,141     | 768       | 799       | 862       | 810       | 1,044     | 854       |           |           | MAIS 2+                     |
| UK             | 46,887    | 47,571    | 46,045    | 45,453    | 44,628    | 43,980    | 42,018    | 41,176    | 39,751    | 38,009    | 35,631    | 34,210    | 32,610    | 30,307    | 29,545    | 27,910    | 26,387    | 25,440    | 25,745    | 24,798 all injuries         |
| USA            | 93,000    | 90,000    | 83,000    | 81,000    | 78,000    | 69,000    | 85,000    | 77,237    | 77,099    | 71,149    | 70,226    | 68,359    | 64,000    | 65,667    | 67,333    | 69,000    |           |           |           |                             |

**Fatality Rate - All Modes**  
per 100,000 population

[illegible]

**Fatality Rate - Pedestrians**  
per 100,000 population

|     | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| NEW | 1.87 | 2.06 | 2.20 | 1.92 | 1.92 | 1.77 | 1.70 | 1.54 | 1.50 | 1.49 | 1.27 | 1.17 | 1.09 | 1.11 | 1.10 | 0.97 | 0.88 | 0.86 | 0.78 | 0.71 |
| UK  | 2.06 | 1.81 | 2.25 | 1.29 | 1.65 | 1.35 | 1.54 | 1.85 | 0.93 | 1.19 | 0.91 | 0.80 | 0.81 | 1.10 | 1.25 | 1.06 | 0.88 | 0.84 | 0.73 | 0.56 |
| DK  | 0.88 | 0.80 | 0.85 | 0.85 | 0.82 | 0.82 | 0.82 | 0.72 | 0.72 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| US  | 2.15 | 1.54 | 1.79 | 1.71 | 1.67 | 1.65 | 1.46 | 1.46 | 1.40 | 1.31 | 1.30 | 1.14 | 1.13 | 1.13 | 1.07 | 0.97 | 0.94 | 0.82 | 0.66 | 0.63 |
| USA | 2.09 | 1.55 | 1.75 | 1.65 | 1.65 | 1.65 | 1.46 | 1.46 | 1.40 | 1.31 | 1.30 | 1.14 | 1.13 | 1.13 | 1.07 | 0.97 | 0.94 | 0.82 | 0.66 | 0.63 |

**Injury Rate - All Modes**  
per 100,000 population

|     | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023        | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 | 2101 | 2102 | 2103 | 2104 | 2105 | 2106 | 2107 | 2108 | 2109 | 2110 | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 2120 | 2121 | 2122 | 2123 | 2124 | 2125 | 2126 | 2127 | 2128 | 2129 | 2130 | 2131 | 2132 | 2133 | 2134 | 2135 | 2136 | 2137 | 2138 | 2139 | 2140 | 2141 | 2142 | 2143 | 2144 | 2145 | 2146 | 2147 | 2148 | 2149 | 2150 | 2151 | 2152 | 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 2160 | 2161 | 2162 | 2163 | 2164 | 2165 | 2166 | 2167 | 2168 | 2169 | 2170 | 2171 | 2172 | 2173 | 2174 | 2175 | 2176 | 2177 | 2178 | 2179 | 2180 | 2181 | 2182 | 2183 | 2184 | 2185 | 2186 | 2187 | 2188 | 2189 | 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 2200 | 2201 | 2202 | 2203 | 2204 | 2205 | 2206 | 2207 | 2208 | 2209 | 2210 | 2211 | 2212 | 2213 | 2214 | 2215 | 2216 | 2217 | 2218 | 2219 | 2220 | 2221 | 2222 | 2223 | 2224 | 2225 | 2226 | 2227 | 2228 | 2229 | 2230 | 2231 | 2232 | 2233 | 2234 | 2235 | 2236 | 2237 | 2238 | 2239 | 2240 | 2241 | 2242 | 2243 | 2244 | 2245 | 2246 | 2247 | 2248 | 2249 | 2250 | 2251 | 2252 | 2253 | 2254 | 2255 | 2256 | 2257 | 2258 | 2259 | 2260 | 2261 | 2262 | 2263 | 2264 | 2265 | 2266 | 2267 | 2268 | 2269 | 2270 | 2271 | 2272 | 2273 | 2274 | 2275 | 2276 | 2277 | 2278 | 2279 | 2280 | 2281 | 2282 | 2283 | 2284 | 2285 | 2286 | 2287 | 2288 | 2289 | 2290 | 2291 | 2292 | 2293 | 2294 | 2295 | 2296 | 2297 | 2298 | 2299 | 2300 | 2301 | 2302 | 2303 | 2304 | 2305 | 2306 | 2307 | 2308 | 2309 | 2310 | 2311 | 2312 | 2313 | 2314 | 2315 | 2316 | 2317 | 2318 | 2319 | 2320 | 2321 | 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | 2330 | 2331 | 2332 | 2333 | 2334 | 2335 | 2336 | 2337 | 2338 | 2339 | 2340 | 2341 | 2342 | 2343 | 2344 | 2345 | 2346 | 2347 | 2348 | 2349 | 2350 | 2351 | 2352 | 2353 | 2354 | 2355 | 2356 | 2357 | 2358 | 2359 | 2360 | 2361 | 2362 | 2363 | 2364 | 2365 | 2366 | 2367 | 2368 | 2369 | 2370 | 2371 | 2372 | 2373 | 2374 | 2375 | 2376 | 2377 | 2378 | 2379 | 2380 | 2381 | 2382 | 2383 | 2384 | 2385 | 2386 | 2387 | 2388 | 2389 | 2390 | 2391 | 2392 | 2393 | 2394 | 2395 | 2396 | 2397 | 2398 | 2399 | 2400 | 2401 | 2402 | 2403 | 2404 | 2405 | 2406 | 2407 | 2408 | 2409 | 2410 | 2411 | 2412 | 2413 | 2414 | 2415 | 2416 | 2417 | 2418 | 2419 | 2420 | 2421 | 2422 | 2423 | 2424 | 2425 | 2426 | 2427 | 2428 | 2429 | 2430 | 2431 | 2432 | 2433 | 2434 | 2435 | 2436 | 2437 | 2438 | 2439 | 2440 | 2441 | 2442 | 2443 | 2444 | 2445 | 2446 | 2447 | 2448 | 2449 | 2450 | 2451 | 2452 | 2453 | 2454 | 2455 | 2456 | 2457 | 2458 | 2459 | 2460 | 2461 | 2462 | 2463 | 2464 | 2465 | 2466 | 2467 | 2468 | 2469 | 2470 | 2471 | 2472 | 2473 | 2474 | 2475 | 2476 | 2477 | 2478 | 2479 | 2480 | 2481 | 2482 | 2483 | 2484 | 2485 | 2486 | 2487 | 2488 | 2489 | 2490 | 2491 | 2492 | 2493 | 2494 | 2495 | 2496 | 2497 | 2498 | 2499 | 2500 | 2501 | 2502 | 2503 | 2504 | 2505 | 2506 | 2507 | 2508 | 2509 | 2510 | 2511 | 2512 | 2513 | 2514 | 2515 | 2516 | 2517 | 2518 | 2519 | 2520 | 2521 | 2522 | 2523 | 2524 | 2525 | 2526 | 2527 | 2528 | 2529 | 2530 | 2531 | 2532 | 2533 | 2534 | 2535 | 2536 | 2537 | 2538 | 2539 | 2540 | 2541 | 2542 | 2543 | 2544 | 2545 | 2546 | 2547 | 2548 | 2549 | 2550 | 2551 | 2552 | 2553 | 2554 | 2555 | 2556 | 2557 | 2558 | 2559 | 2560 | 2561 | 2562 | 2563 | 2564 | 2565 | 2566 | 2567 | 2568 | 2569 | 2570 | 2571 | 2572 | 2573 | 2574 | 2575 | 2576 | 2577 | 2578 | 2579 | 2580 | 2581 | 2582 | 2583 | 2584 | 2585 | 2586 | 2587 | 2588 | 2589 | 2590 | 2591 | 2592 | 2593 | 2594 | 2595 | 2596 | 2597 | 2598 | 2599 | 2600 | 2601 | 2602 | 2603 | 2604 | 2605 | 2606 | 2607 | 2608 | 2609 | 2610 | 2611 | 2612 | 2613 | 2614 | 2615 | 2616 | 2617 | 2618 | 2619 | 2620 | 2621 | 2622 | 2623 | 2624 | 2625 | 2626 | 2627 | 2628 | 2629 | 2630 | 2631 | 2632 | 2633 | 2634 | 2635 | 2636 | 2637 | 2638 | 2639 | 2640 | 2641 | 2642 | 2643 | 2644 | 2645 | 2646 | 2647 | 2648 | 2649 | 2650 | 2651 | 2652 | 2653 | 2654 | 2655 | 2656 | 2657 | 2658 | 2659 | 2660 | 2661 | 2662 | 2663 | 2664 | 2665 | 2666 | 2667 | 2668 | 2669 | 2670 | 2671 | 2672 | 2673 | 2674 | 2675 | 2676 | 2677 | 2678 | 2679 | 2680 | 2681 | 2682 | 2683 | 2684 | 2685 | 2686 | 2687 | 2688 | 2689 | 2690 | 2691 | 2692 | 2693 | 2694 | 2695 | 2696 | 2697 | 2698 | 2699 | 2700 | 2701 | 2702 | 2703 | 2704 | 2705 | 2706 | 2707 | 2708 | 2709 | 2710 | 2711 | 2712 | 2713 | 2714 | 2715 | 2716 | 2717 | 2718 | 2719 | 2720 | 2721 | 2722 | 2723 | 2724 | 2725 | 2726 | 2727 | 2728 | 2729 | 2730 | 2731 | 2732 | 2733 | 2734 | 2735 | 2736 | 2737 | 2738 | 2739 | 2740 | 2741 | 2742 | 2743 | 2744 | 2745 | 2746 | 2747 | 2748 | 2749 | 2750 | 2751 | 2752 | 2753 | 2754 | 2755 | 2756 | 2757 | 2758 | 2759 | 2760 | 2761 | 2762 | 2763 | 2764 | 2765 | 2766 | 2767 | 2768 | 2769 | 2770 | 2771 | 2772 | 2773 | 2774 | 2775 | 2776 | 2777 | 2778 | 2779 | 2780 | 2781 | 2782 | 2783 | 2784 | 2785 | 2786 | 2787 | 2788 | 2789 | 2790 | 2791 | 2792 | 2793 | 2794 | 2795 | 2796 | 2797 | 2798 | 2799 | 2800 | 2801 | 2802 | 2803 | 2804 | 2805 | 2806 | 2807 | 2808 | 2809 | 2810 | 2811 | 2812 | 2813 | 2814 | 2815 | 2816 | 2817 | 2818 | 2819 | 2820 | 2821 | 2822 | 2823 | 2824 | 2825 | 2826 | 2827 | 2828 | 2829 | 2830 | 2831 | 2832 | 2833 | 2834 | 2835 | 2836 | 2837 | 2838 | 2839 | 2840 | 2841 | 2842 | 2843 | 2844 | 2845 | 2846 | 2847 | 2848 | 2849 | 2850 | 2851 | 2852 | 2853 | 2854 | 2855 | 2856 | 2857 | 2858 | 2859 | 2860 | 2861 | 2862 | 2863 | 2864 | 2865 | 2866 | 2867 | 2868 | 2869 | 2870 | 2871 | 2872 | 2873 | 2874 | 2875 | 2876 | 2877 | 2878 | 2879 | 2880 | 2881 | 2882 | 2883 | 2884 | 2885 | 2886 | 2887 | 2888 | 2889 | 2890 | 2891 | 2892 | 2893 | 2894 | 2895 | 2896 | 2897 | 2898 | 2899 | 2900 | 2901 | 2902 | 2903 | 2904 | 2905 | 2906 | 2907 | 2908 | 2909 | 2910 | 2911 | 2912 | 2913 | 2914 | 2915 | 2916 | 2917 | 2918 | 2919 | 2920 | 2921 | 2922 | 2923 | 2924 | 2925 | 2926 | 2927 | 2928 | 2929 | 2930 | 2931 | 2932 | 2933 | 2934 | 2935 | 2936 | 2937 | 2938 | 2939 | 2940 | 2941 | 2942 | 2943 | 2944 | 2945 | 2946 | 2947 | 2948 | 2949 | 2950 | 2951 | 2952 | 2953 | 2954 | 2955 | 2956 | 2957 | 2958 | 2959 | 2960 | 2961 | 2962 | 2963 | 2964 | 2965 | 2966 | 2967 | 2968 | 2969 | 2970 | 2971 | 2972 | 2973 | 2974 | 2975 | 2976 | 2977 | 2978 | 2979 | 2980 | 2981 | 2982 | 2983 | 2984 | 2985 | 2986 | 2987 | 2988 | 2989 | 2990 | 2991 | 2992 | 2993 | 2994 | 2995 | 2996 | 2997 | 2998 | 2999 | 3000 |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| NOV | 430  | 1    | 431  | 427  | 419  | 389  | 218  | 417  | 444  | 460  | 429  | 407  | 382  | 373  | 372  | 374  | 364  | 347  | 341  | 344  | 356  | 369  | 313  | all injured |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

**Injury Rate - Pedestrian**  
per 100,000 population

[illegible]

**Fatality Index - All Modes**  
base = 1000

|     | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |      |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| NSW | 1.00 | 1.11 | 1.07 | 1.00 | 0.99 | 0.98 | 0.96 | 0.99 | 1.04 | 0.90 | 0.97 | 0.93 | 0.88 | 0.87 | 0.85 | 0.75 | 0.64 | 0.78 | 0.70 | 0.63 | 0.64 |
| ACT | 1.00 | 0.98 | 0.98 | 1.03 | 1.01 | 0.98 | 0.98 | 1.00 | 1.03 | 1.03 | 1.02 | 1.02 | 1.01 | 1.02 | 1.01 | 0.97 | 0.94 | 0.74 | 0.76 | 0.74 | 0.76 |
| Qld | 1.00 | 0.99 | 1.04 | 0.92 | 0.88 | 0.89 | 0.92 | 0.88 | 0.97 | 0.63 | 0.77 | 0.68 | 0.59 | 0.56 | 0.55 | 0.73 | 0.73 | 0.64 | 0.46 | 0.30 | 0.30 |
| SA  | 1.00 | 1.04 | 1.07 | 1.00 | 0.99 | 0.92 | 0.97 | 0.92 | 0.97 | 0.63 | 0.77 | 0.68 | 0.59 | 0.56 | 0.55 | 0.73 | 0.73 | 0.64 | 0.46 | 0.30 | 0.30 |
| WA  | 1.00 | 0.96 | 0.95 | 0.94 | 0.94 | 0.90 | 0.90 | 0.89 | 0.90 | 0.90 | 0.92 | 0.64 | 0.84 | 0.83 | 0.77 | 0.67 | 0.58 | 0.49 | 0.50 | 0.46 | 0.46 |

### Fatality Index - Pedestrians

| Year | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| NIW  | 1.60 | 1.00 | 1.11 | 1.11 | 0.97 | 0.87 | 0.50 | 0.84 | 0.75 | 0.60 | 0.80 | 0.73 | 0.52 | 0.42 | 0.58 | 0.42 | 0.50 | 0.50 | 0.42 | 0.47 |
| AU   | 1.11 | 1.11 | 1.11 | 1.20 | 0.96 | 0.97 | 0.87 | 0.84 | 0.75 | 0.60 | 0.80 | 0.73 | 0.52 | 0.42 | 0.58 | 0.42 | 0.50 | 0.50 | 0.42 | 0.47 |
| UK   | 1.00 | 0.71 | 0.89 | 0.91 | 0.85 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| DK   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| DE   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| FR   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| IT   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| ES   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| GR   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| PT   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| PL   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| SE   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| NO   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| FI   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| IS   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| JP   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| RU   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| BR   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| IN   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| CH   | 1.00 | 0.91 | 0.84 | 0.84 | 0.75 | 0.55 | 0.62 | 0.74 | 0.36 | 0.48 | 0.37 | 0.32 | 0.33 | 0.45 | 0.41 | 0.44 | 0.39 | 0.33 | 0.25 | 0.31 |
| SG   | 1.00 | 0.91 | 0.84 | 0.84 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

### Injury Index - All Modes

| Year | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| USA  | 1.00 | 0.89 | 0.85 | 0.98 | 0.99 | 0.93 | 1.00 | 1.01 | 1.00 | 1.13 | 1.08 | 1.03 | 1.00 | 0.96 | 0.90 | 0.88 | 0.91 | 0.91 | 0.93 | 1.00 |
| UK   | 1.00 | 1.07 | 1.10 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| DK   | 1.00 | 0.98 | 1.01 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| FR   | 1.00 | 1.03 | 1.02 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| DE   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| IT   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| ES   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| GR   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| PT   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| BE   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| NL   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| FI   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| SE   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| NO   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| IS   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| JP   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| CH   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| AT   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| AU   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| CA   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| BR   | 1.00 | 1.03 | 1.03 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |

Injury Index - All Pedestrians

[illegible]

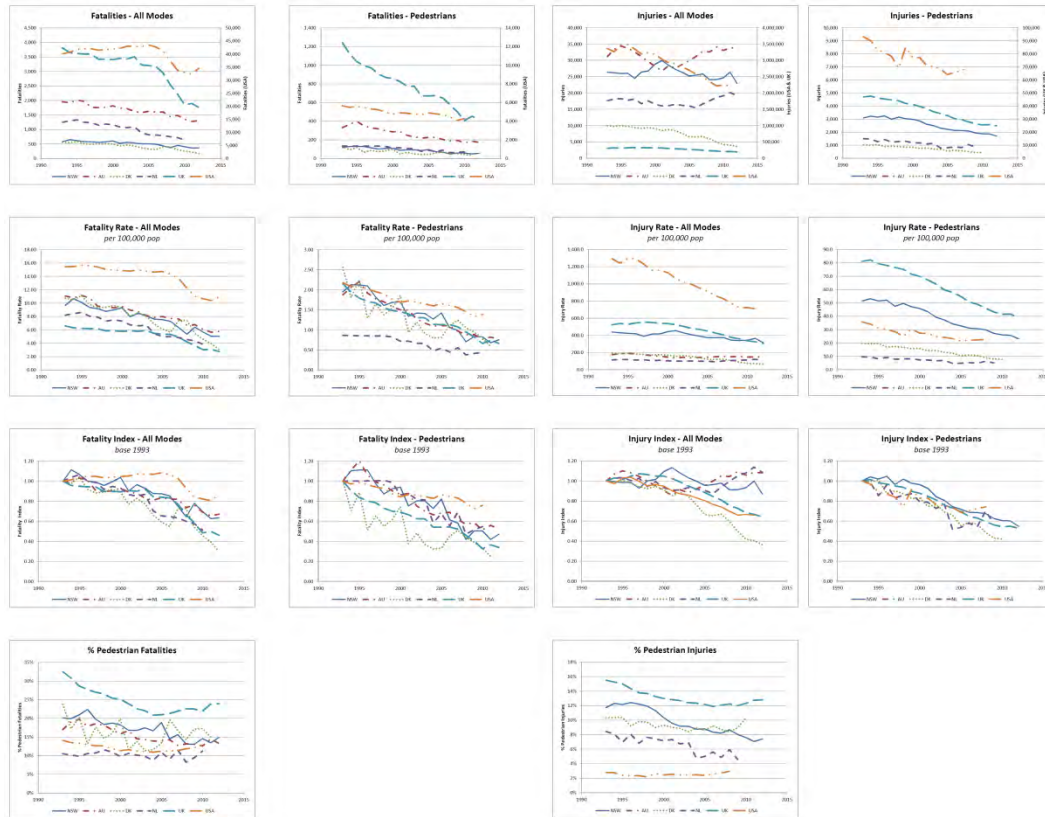
**%Pedestrian Crashes - Fatal**

[illegible]

**%Pedestrian Crashes - Injuries**  
1993

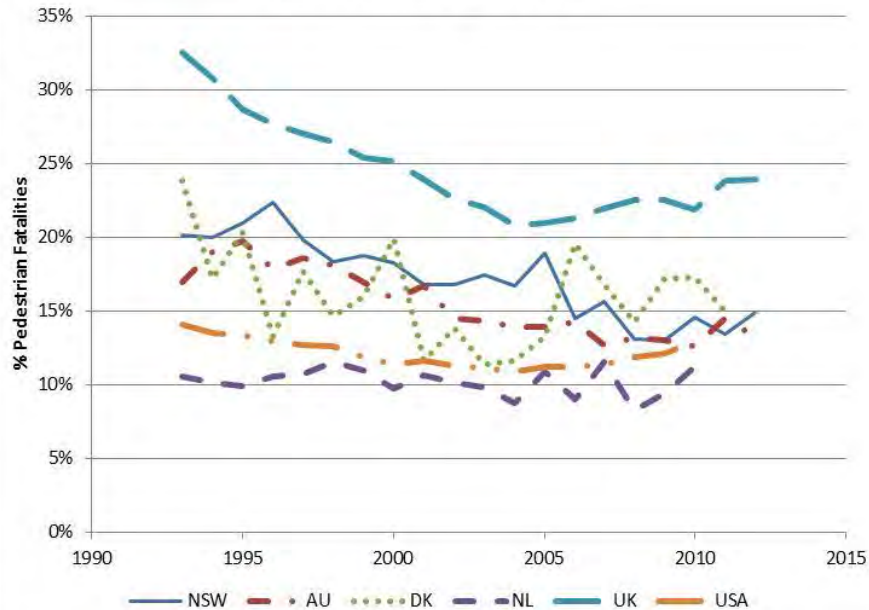
[illegible]

# Data, Data, Data

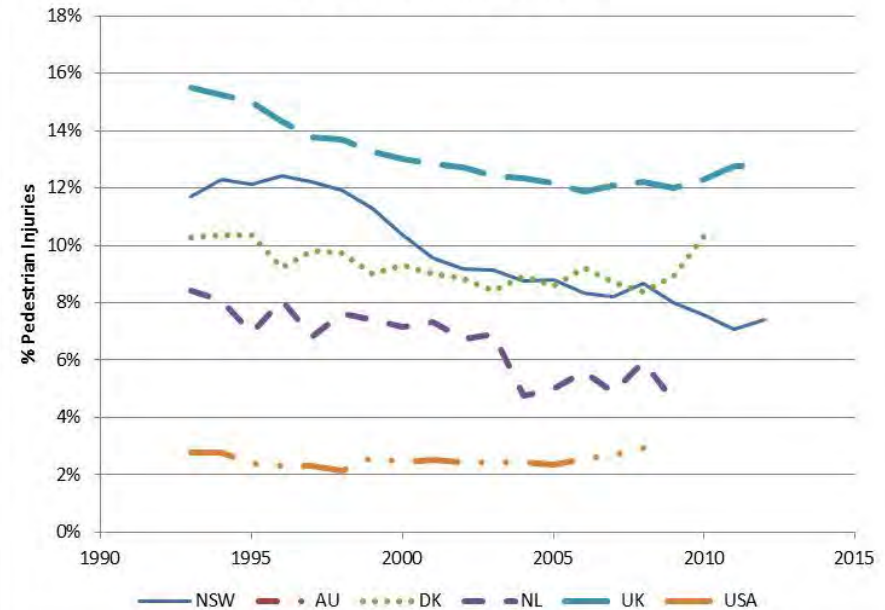


# Data, Data, Data

## % Pedestrian Fatalities

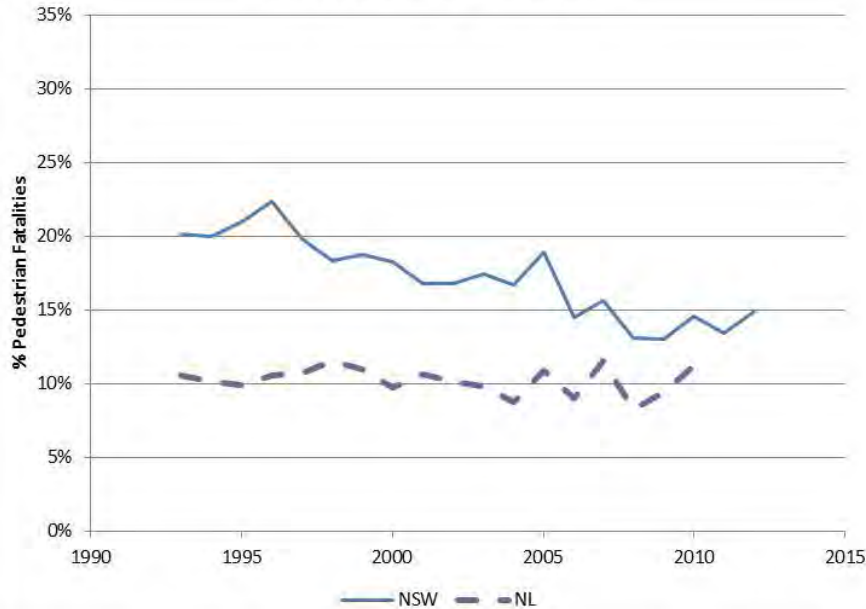


## % Pedestrian Injuries

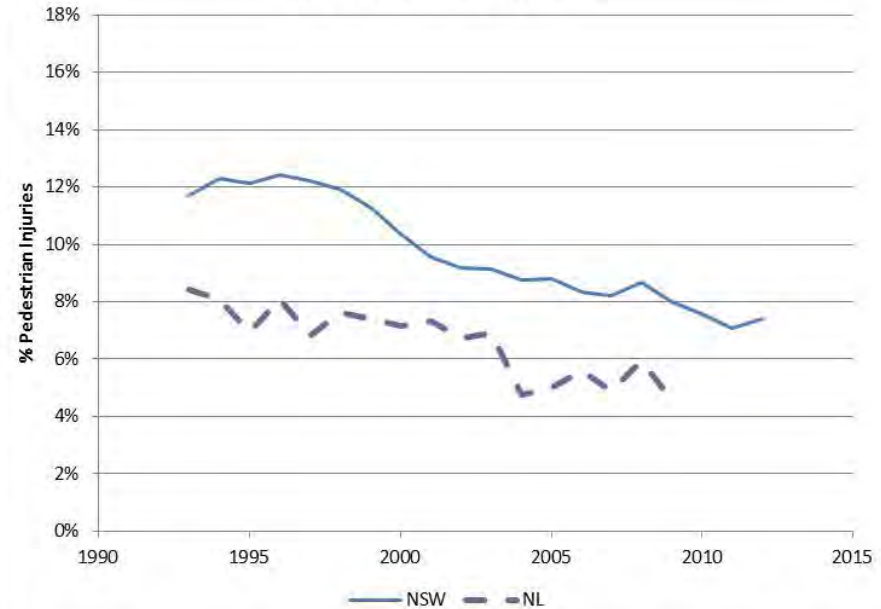


# 80-90% of residential streets in Holland - 30km/h

% Pedestrian Fatalities



% Pedestrian Injuries



# We know what to do



Australian Government

Australian Transport Safety Bureau

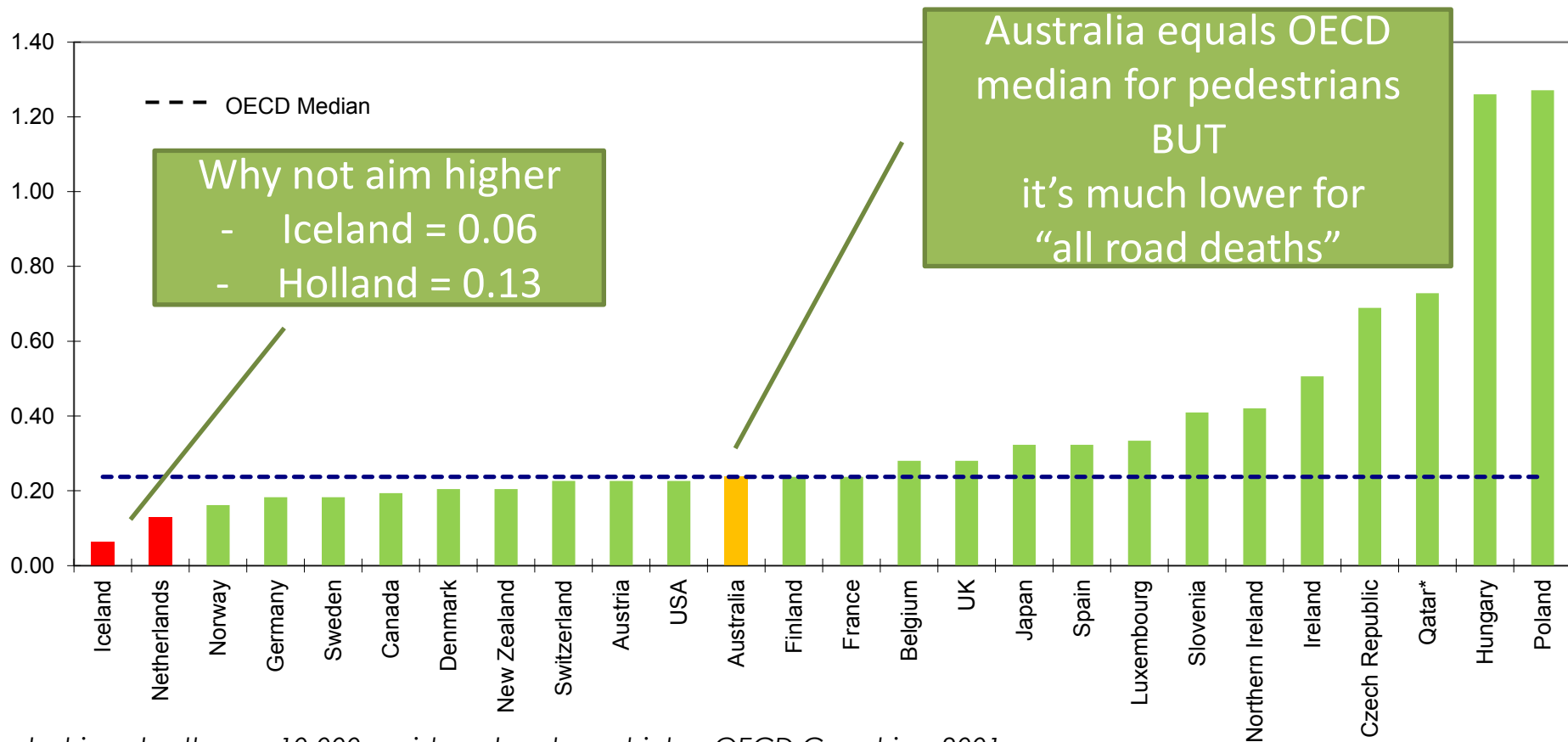
## Road Safety in Australia

A Publication Commemorating  
World Health Day 2004

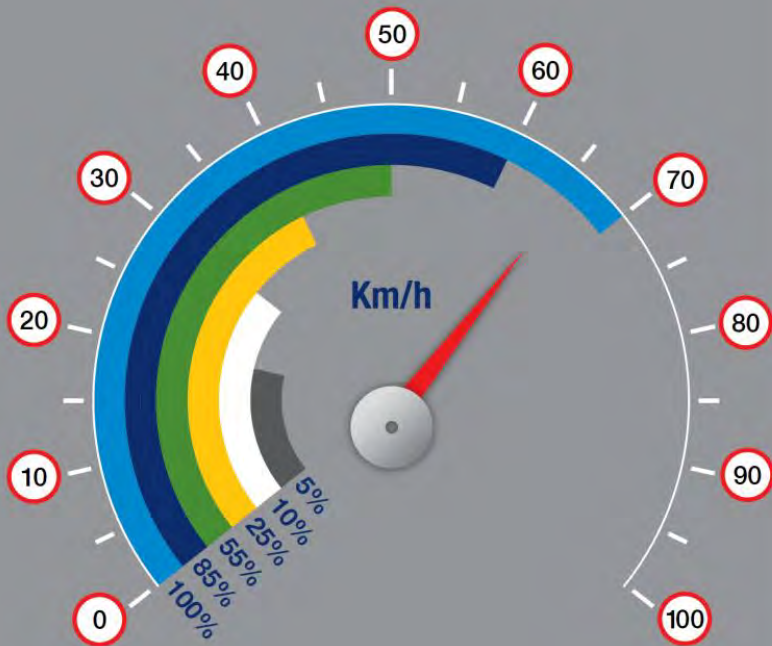


# “Safe Systems” has difficulty with vulnerable road users

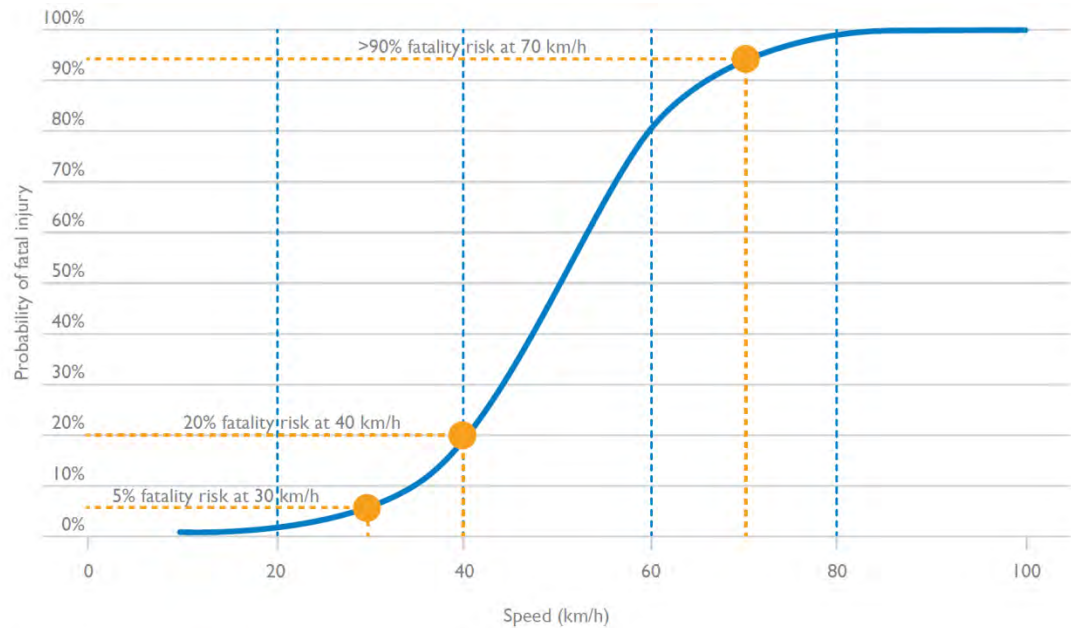
Response - **NOT** more effort, but **LESS** (uncertainty, confronting solutions)



Pedestrian deaths per 10,000 registered motor vehicles, OECD Countries, 2001



- Travelling at 70km/h – 100% of people will die
- Travelling at 60km/h – 85% of people will die
- Travelling at 50km/h – 55% of people will die
- Travelling at 40km/h – 25% of people will die
- Travelling at 30km/h – 10% of people will die
- Travelling at 20km/h – 5% of people will die



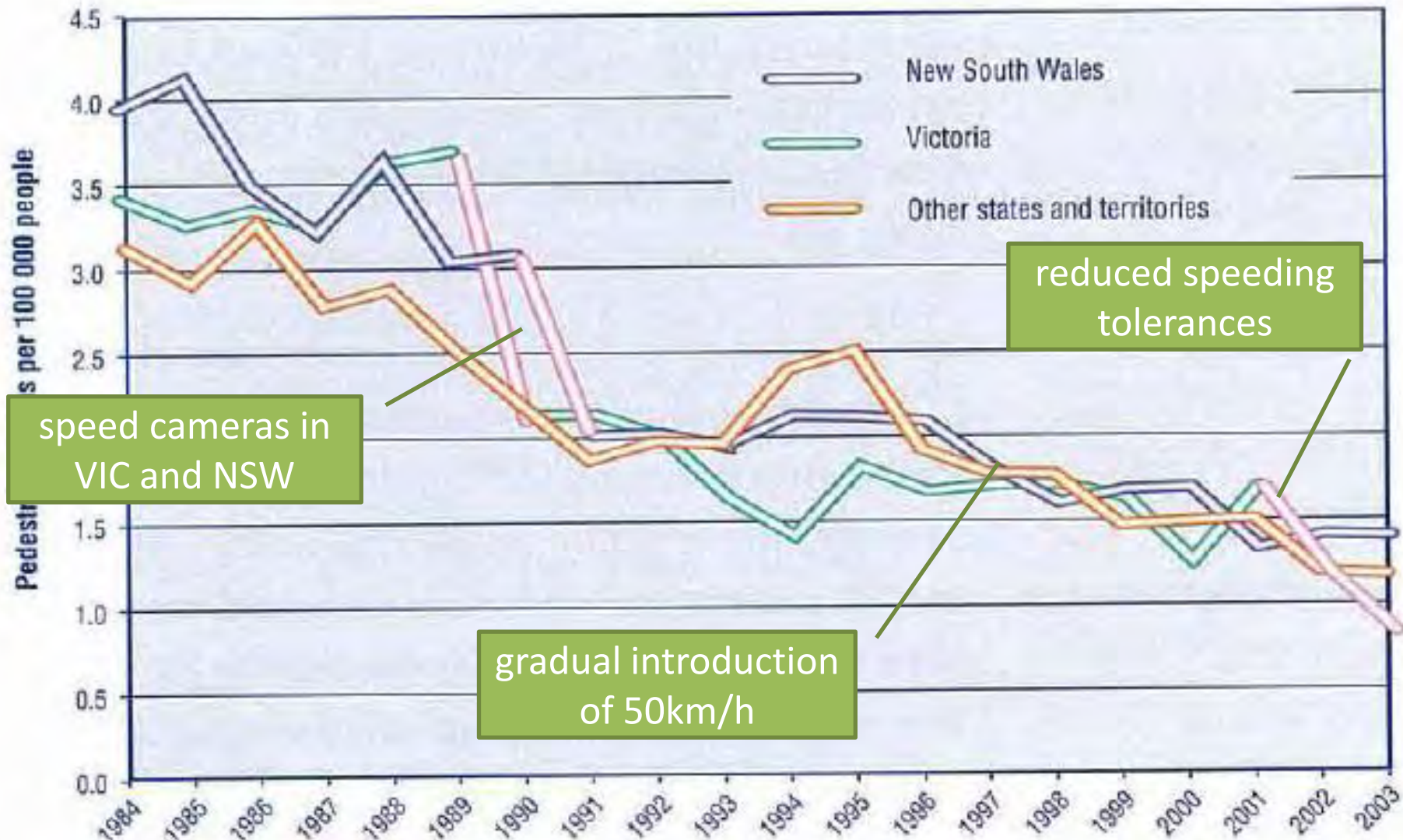
Source: Austroads 2012, *On road Cycling on Higher Speed Roads*.

# We've done great things

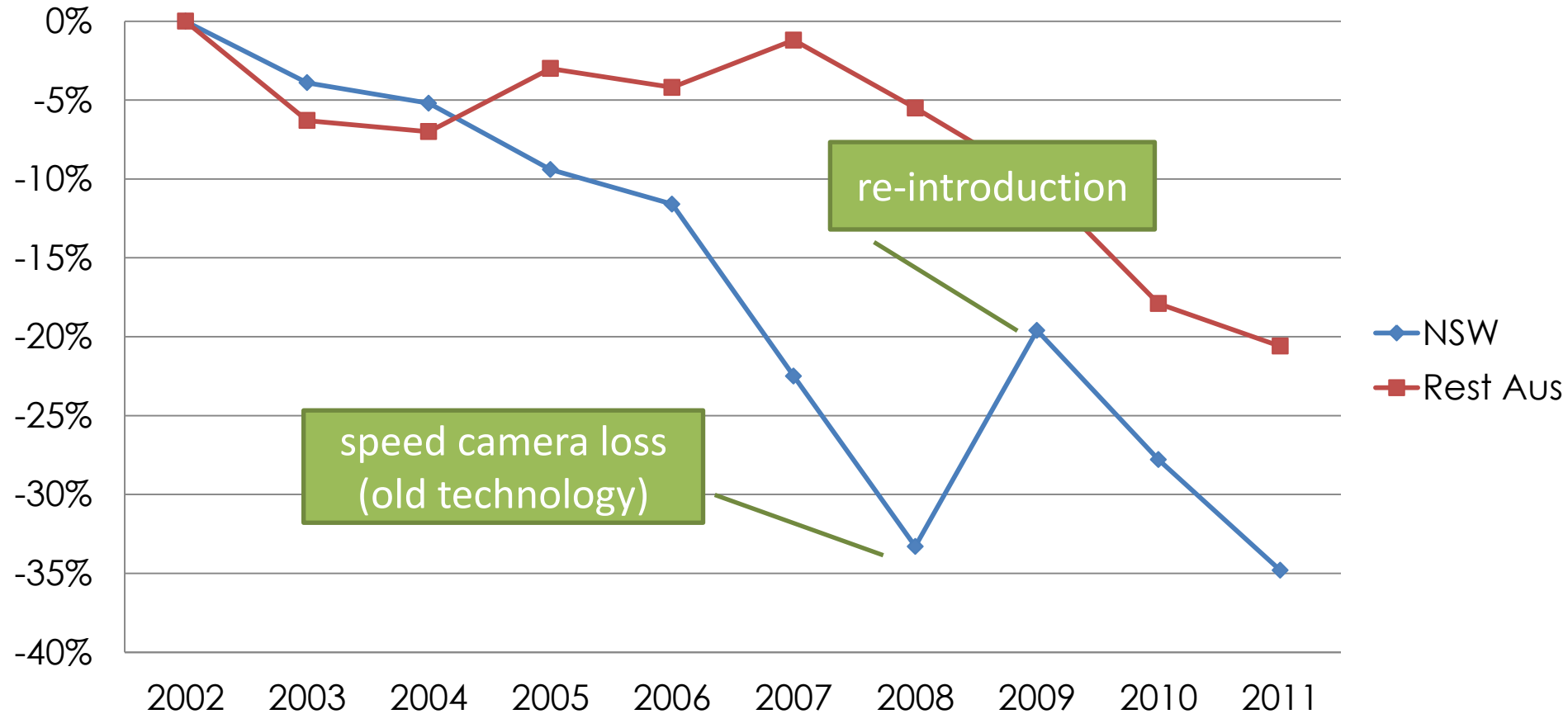


- 46% reduction child ped casualties
- 45% reduction in overall casualties





# Re-introduction of mobile speed cameras in NSW produced a large reduction in fatalities



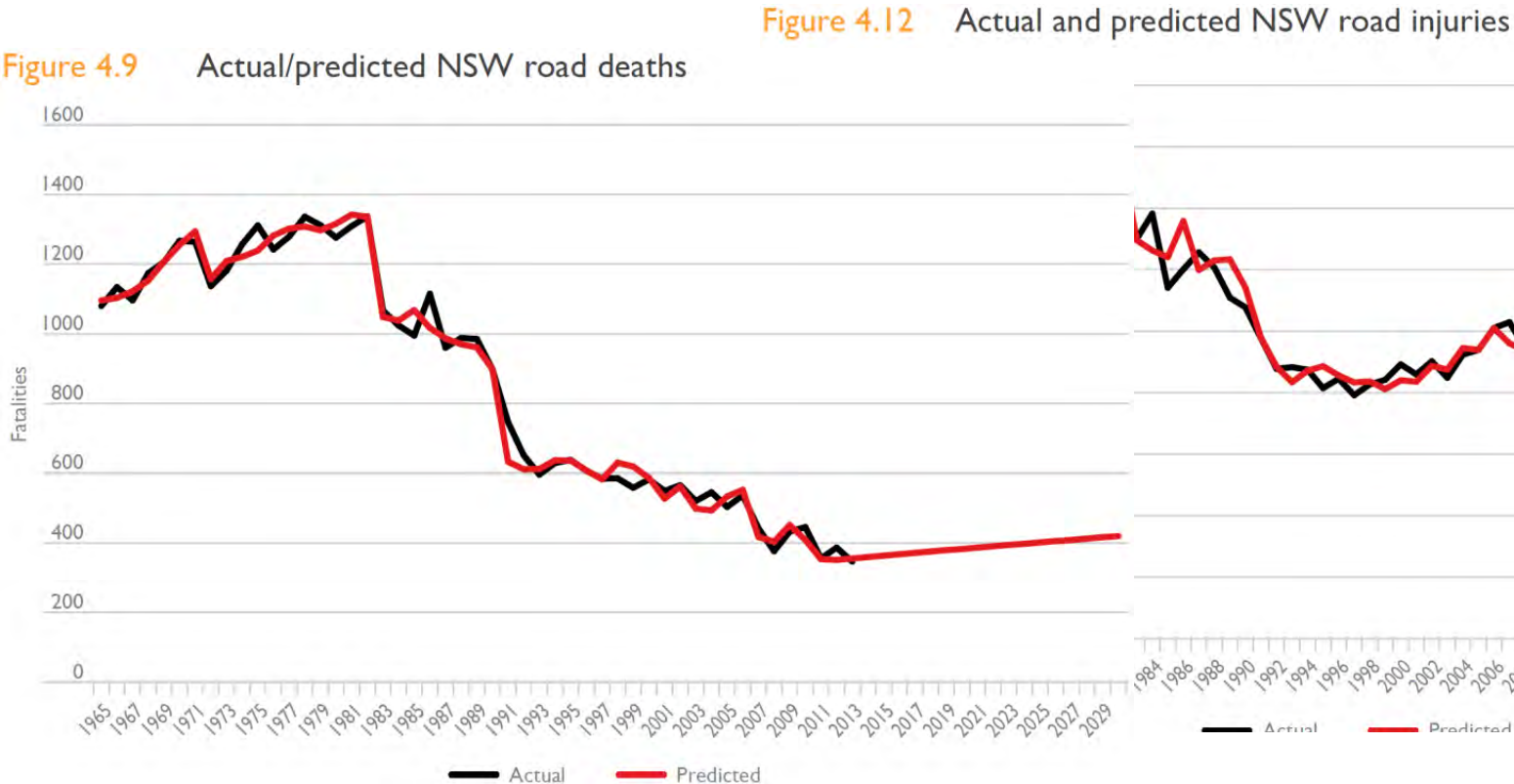
## But.....BITRE has a sober warning....

Road safety has in the past been achieved by a variety of measures, but mainly:

- seat belt wearing
- speed and alcohol control

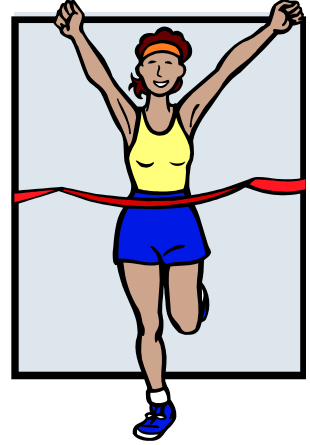
As the main measures .... begin to reach maximum effect ....., the tendency will be for **flat to rising levels of death and injury**

if we don't change direction, we will end up  
where we are headed



Professor Irwin Corey, American vaudeville comic and actor (1914 - current), as quoted by John Holstein, CAMWEST

# The Next Phase - nannys or champions



# Wegman's Legacy

## Facts

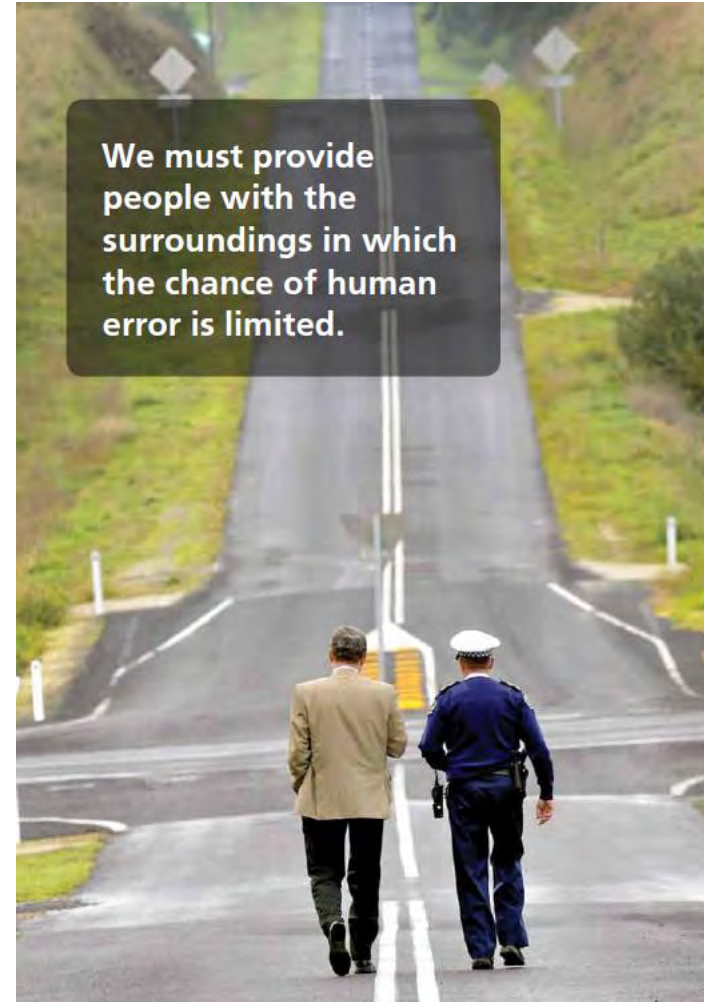
- SA Thinker in Residence
- Arrived Mon 4 Aug 2011
- Headline Sat 8 Aug 2011
- Report June 2012

## Headline

- Expert wants 30km/h limit to reduce road toll

## Report

- Driving down the road toll by building a Safe System



# Wegman's Legacy

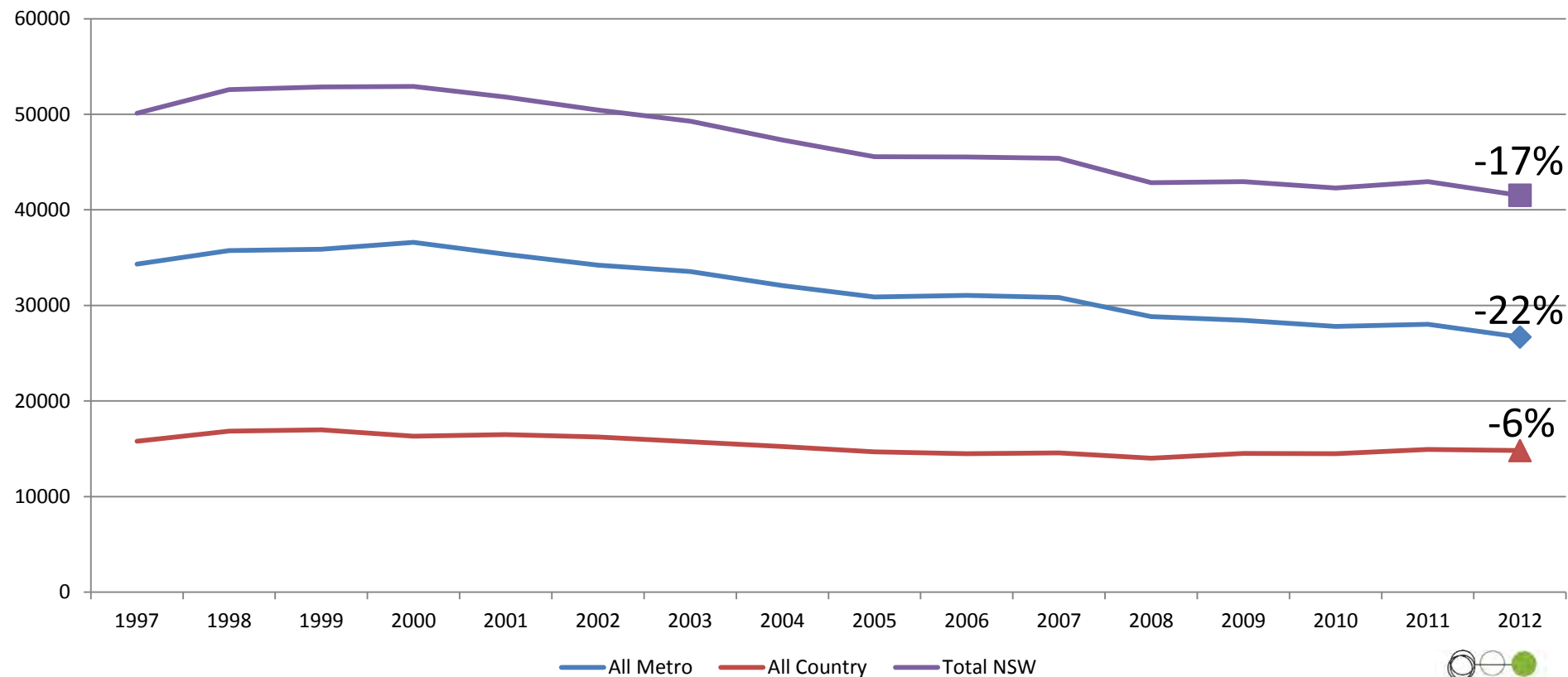
## Adelaide Advertiser (on-line)

- Published 12:01AM
- First response 12:27AM
- First "Nanny" #4 at 12:56AM
- Final comment 11:31AM

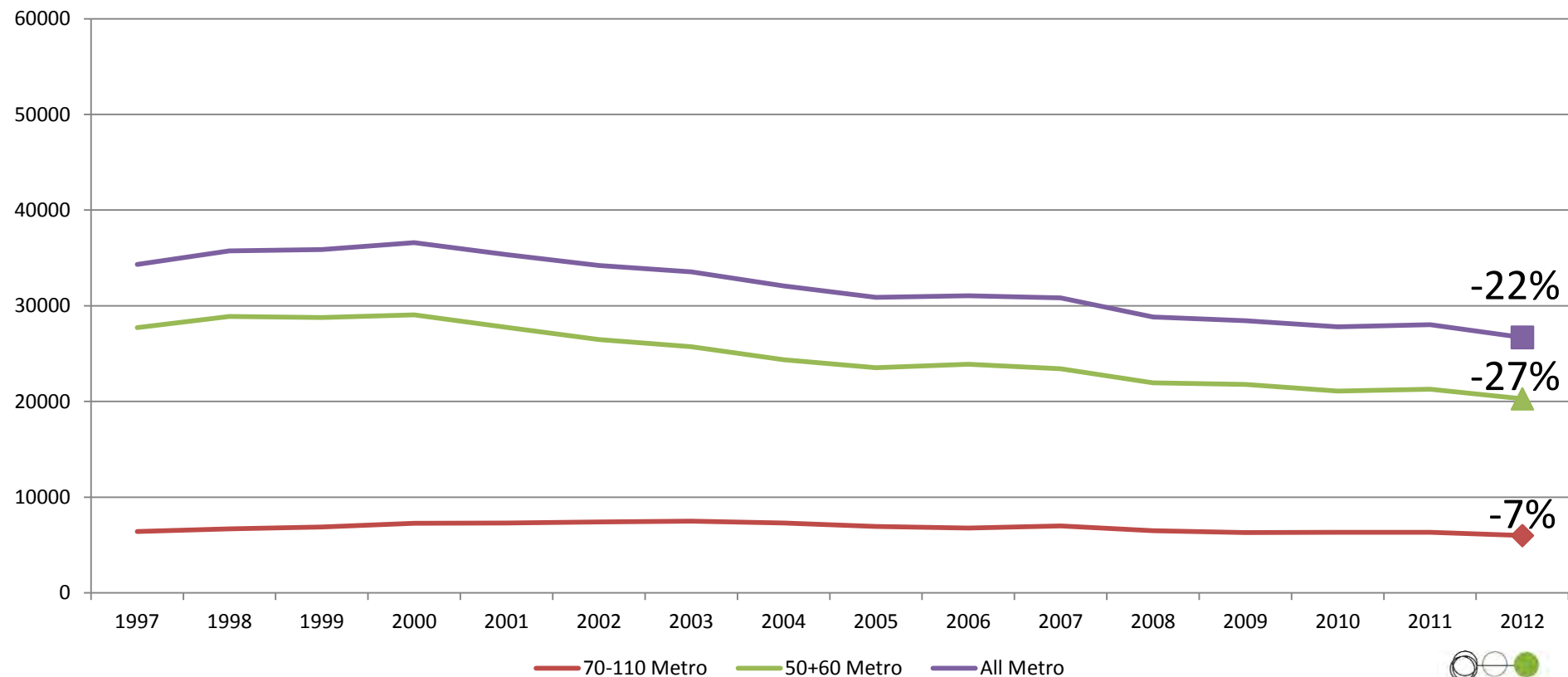
|            | No  | Yes | Nanny |
|------------|-----|-----|-------|
| Before 6am | 41  | 2   | 2     |
| 6am-9pm    | 202 | 14  | 3     |
| After 9pm  | 14  | 0   | 3     |
|            | 257 | 16  | 8     |
|            | 273 |     | --    |



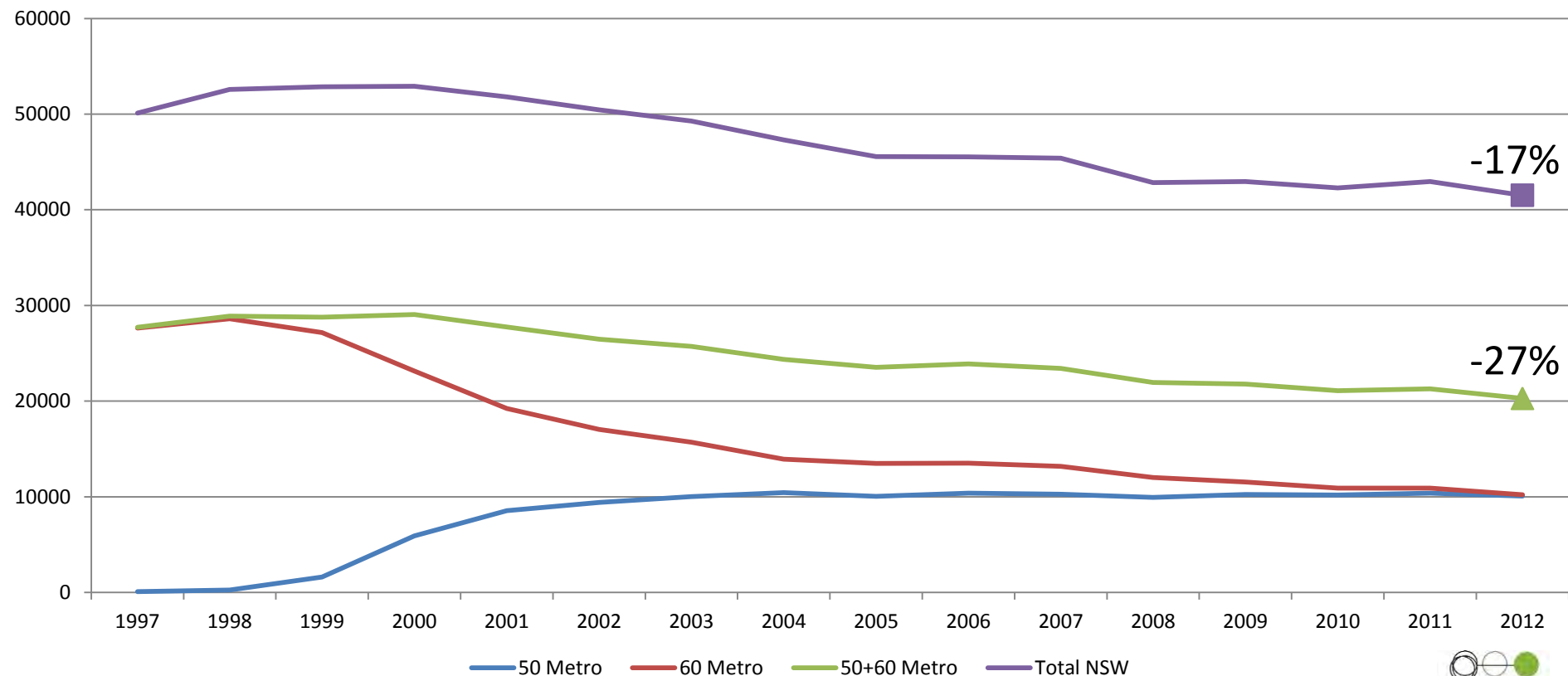
# Community Concerns – urban vs rural



# Community Concerns – arterial vs local



# Community Concerns – effects of 60 to 50



# Community Concerns – travel time

|  | Distance<br>(km) | Time<br>50km/h<br>(min) | Time<br>30 km/h<br>(min) | Difference<br>(min) | Diff<br>(seconds) |
|--|------------------|-------------------------|--------------------------|---------------------|-------------------|
|--|------------------|-------------------------|--------------------------|---------------------|-------------------|

## Travel Time

|                      |             |               |               |                 |              |
|----------------------|-------------|---------------|---------------|-----------------|--------------|
| Home to main road    | 0.5         | 0.6           | 1             | 0.4min          | 24sec        |
| Main road            | 13          | 24.8          | 24.8          | 0min            | 0sec         |
| Work to main road    | 0.5         | 0.6           | 1             | 0.4min          | 24sec        |
| <b>Total</b>         | <b>14.0</b> | <b>26</b>     | <b>26.8</b>   | <b>0.8min</b>   | <b>48sec</b> |
| <b>Average Speed</b> |             | <b>32km/h</b> | <b>31km/h</b> | <b>-1.0km/h</b> |              |

## Travel Cost

|                      |              |           |
|----------------------|--------------|-----------|
| Value of Travel Time | \$11.89      |           |
| Total Cost/person    | \$3.17/month | = 1 cuppa |



|                                       |       |                         |                        |               |
|---------------------------------------|-------|-------------------------|------------------------|---------------|
| Destination<br>access to<br>main road | 0.6km | 0.72min<br>at<br>50km/h | 1.2min<br>at<br>30km/h | 29sec<br>diff |
|---------------------------------------|-------|-------------------------|------------------------|---------------|

GTA Sydney

|           |                  |          |
|-----------|------------------|----------|
| main road | 13.1km<br>(19.8) | 24.92min |
|-----------|------------------|----------|

|                               |       |                         |                        |               |
|-------------------------------|-------|-------------------------|------------------------|---------------|
| Origin access<br>to main road | 0.3km | 0.36min<br>at<br>50km/h | 0.6min<br>at<br>30km/h | 14sec<br>diff |
|-------------------------------|-------|-------------------------|------------------------|---------------|

Huize DvD

Google earth

Imagery Date: 1/1/2009 33°51'18.79" S 151°12'36.00" E elev 6 m eye alt 15.23 km

# Community Concerns – crash reduction

|                 | Annual crashes (metro, 50km/h)**                                                     | Crash reduction #, ## | Crash savings at 80% conversion ## | \$ Each*    | \$ Saved     |                |
|-----------------|--------------------------------------------------------------------------------------|-----------------------|------------------------------------|-------------|--------------|----------------|
| Fatalities      | 29  | 10%                   | 2                                  | \$5,582,000 | \$13         | Million        |
| Injuries        | 4,389                                                                                | 60%                   | 2,107                              | \$410,000   | \$864        | Million        |
| Property Damage | 5,658                                                                                | 25%                   | 1,132                              | \$8,150     | \$9          | Million        |
| <b>Total</b>    | <b>10,076</b>                                                                        |                       | <b>3,241</b>                       |             | <b>\$886</b> | <b>Million</b> |

## References

\* RTA Econ, App B, Table 9 & 17, 2009

\*\* RTA. Road Traffic Crashes in NSW. Statistical Statement for 2012. Table 22, 50km/h, metro.

## SWOV (2010). Effectiviteit en kosten van verkeersveiligheidsmaatregelen. Page 18, 21.

# SWOV (2006). Advancing Sustainable Safety. Page 67.

## Costs and Benefits – conclusion

$$\text{BCR} = 6.68$$

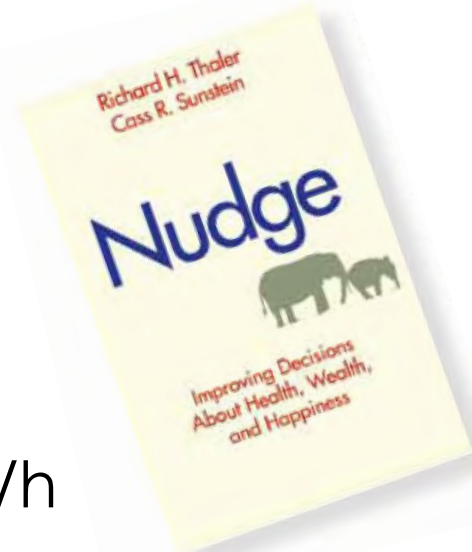

$$* =$$


per week

\* Over 15 years

# Action Plan

- ~~Nanny State~~ **Libertarian Paternalism**
- Engage Champions
- Change existing 40km/h zones to 30km/h
- **“Sparse”** extension of 30km/h to **50%** of local streets, using roundabouts and entry thresholds, and treating known crash spots
- Over time:
  - More intense treatment
  - Expand 30km/h to 80% of local streets



# Hippies -vs- Horse Power

*sandal-wearing, muesli-chewing,  
bike-riding pedestrians*



<http://www.smh.com.au/nsw/keating-lashes-mueslichewer-barangaroo-inquiry-20110505-1each.html>



# Walking Battler CHAMPION



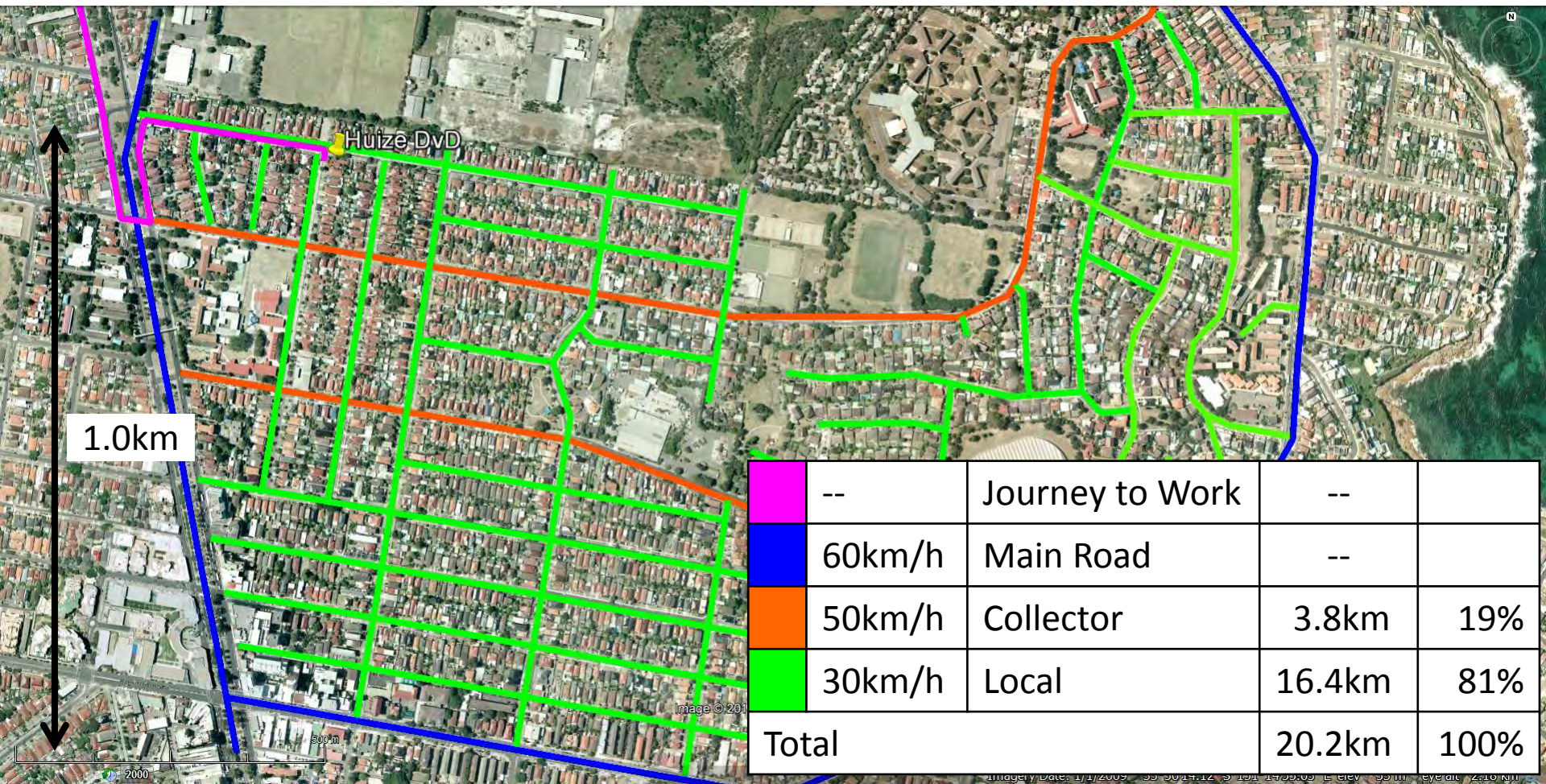
## **Bicycle Campaign**

*Please Tony spend  
\$7.5billion on  
separated bike lanes  
and paths*



*Please John get Tony to spend  
\$7.5billion on 30km/h and other ped  
safety improvements*





# Dutch examples



# Dutch examples



# Dutch examples



# Code Red Flag - can we handle the next phase?



A Few Good Men: Jack Nicholson as Colonel Jessup in Court on "Code Red"  
[www.youtube.com/watch?v=5j2F4VcBmeo](http://www.youtube.com/watch?v=5j2F4VcBmeo)