

Child restraint use by children under 5 years: Results of national survey, 2007.

The latest annual national survey of child restraint use in New Zealand by children under 5 years was carried out in October and November 2007. Children in more than 5,200 cars were observed at 112 sites throughout New Zealand. As in previous years, sites were surveyed during school hours in the school term. Results were weighted to reflect the population under five in each local authority.

The results from 2007 showed that across all sites, **91%** of children under the age of 5 years were either in an infant seat, child seat, booster seat, or restrained by a child harness.

Fifty one percent of the children in the survey were appropriately restrained in child seats, 21% in booster seats, 19% in infant seats and 1% in child harnesses. A further 7% were restrained by adult safety belts. The remaining 2% were not restrained, including less than 1% who were held on the knee of other passengers (see Table 1).

Table 1. Restraint type used by children under 5 (%)

Category	1999	2000	2001	2002	2003 ¹	2004	2005	2006 ¹	2007
Appropriate restraint used	75	79	82	86	86	87	89	91	91
Adult safety belt used	11	11	9	9	8	8	7	6	7
Unrestrained	14	11	9	5	5	5	4	4	2

Regional Wearing Rates

National surveys are designed to provide a consistent measure of child restraint use over time, by surveying the same sites in each region each year. Table 2 shows the child restraint wearing rates by children under the age of five years in each Local Government region. In 2007 at least 200 children were surveyed in each region, except in Northland where 193 children were observed, Gisborne where 196 were observed and West Coast where 104 were observed.

Overall, the wearing of child restraints continues to increase or stay steady. Gisborne has increased after a drop in 2006. Child restraint wearing in Northland decreased 5% this year, but wearing rates stayed above the national average. Wearing rates in all other regions are being maintained or are continuing to increase in line with the national trend.

¹ Rounded figures given; actual percentages add to 100%.

Table 2. Child restraint wearing rates, by region (%)

Local Government Region	1999	2000	2001	2002	2003	2004	2005	2006	2007
Northland	61	70	69	85	84	95	98	100	95
Auckland	70	75	77	83	82	81	86	92	90
Waikato	80	78	81	88	90	87	89	87	89
Bay of Plenty	75	79	78	87	78	81	91	89	86
Gisborne	47	68	79	69	76	88	92	83	100
Hawkes Bay	74	67	90	94	83	92	98	89	92
Taranaki	82	77	78	95	91	94	87	95	96
Manawatu - Wanganui	71	83	81	84	89	94	91	94	97
Wellington	81	81	83	82	90	89	91	92	90
Nelson - Marlborough	65	73	79	94	92	93	91	93	91
West Coast	80	82	84	92	92	92	92	93	96
Canterbury	87	88	94	91	93	93	83	85	90
Otago	89	87	97	97	90	95	91	91	98
Southland	84	87	76	81	88	83	94	92	90
All NZ	75	79	82	86	86	87	89	91	91

Metropolitan Area Wearing Rates

Child restraint wearing rates for selected metropolitan areas are presented in Table 3. In Manukau City, the rate has decreased since 2006 (from 96% to 91%) but is still much higher than in earlier years. All other metropolitan areas showed a steady wearing rate.

Table 3. Child restraint wearing rates, by metropolitan area (%)

Metropolitan areas	1999	2000	2001	2002	2003	2004	2005	2006	2007
North Shore	84	91	90	79	88	80	94	93	92
Waitakere	76	80	78	86	91	95	91	90	89
Auckland City	71	81	82	88	85	88	86	86	89
Manukau	59	64	69	82	68	66	76	96	91
Hamilton	84	81	84	90	95	80	94	87	88
Wellington City	88	91	87	86	84	86	87	87	89
Christchurch	84	88	94	90	93	91	77	85	89
Dunedin	87	85	98	99	91	96	91	98	100

Local Authority Wearing Rates

At Local Authority level, sample sizes are relatively small and results should be treated with caution. For example, with a sample size of 100 and a wearing rate of 80%, the margin of error (based on a 95% confidence interval for the wearing rate) is approximately 8%.

Child restraint wearing rates at Local Authority level are presented in Table 4. Wearing rates for several neighbouring local authority areas have been combined to enable estimation of the wearing rate in areas with small samples. While small samples make it difficult to detect small changes in the wearing rate from year to year, these results are useful as an indication of how much improvement is needed. No wearing rate has been estimated where fewer than 70 people were sampled.

Table 4. Child restraint wearing rates by Territorial Local Authority, 2007

Local authority / authorities	Children in sample	% in child restraints	Local authority / authorities	Children in sample	% in child restraints
<i>Northland</i>			<i>Hawkes Bay</i>		
Far North/Kaipara ²	94	83	Wairoa/ Napier	226	91
Whangarei	99	98	Napier	159	92
<i>Auckland</i>			Hastings	90	93
North Shore	254	92	Hastings / Central Hawkes Bay	108	92
Rodney/North Shore	300	92	<i>Taranaki</i>		
Waitakere	132	89	New Plymouth	123	99
Auckland	175	89	Stratford	75	91
Manukau	95	91	South Taranaki	92	91
Franklin/Papakura/ Manukau	155	91	<i>Manawatu-Wanganui</i>		
<i>Waikato</i>			Ruapehu / Rangitikei/ Wanganui	167	98
Waikato	94	83	Wanganui	107	99
Waipa	158	85	Manawatu / Tararua / Horowhenua/ Palmerston North	118	96
Matamata – Piako/ South Waikato	89	91	Manawatu/ Palmerston North	85	99
Hamilton	246	88	<i>Wellington</i>		
Taupo	75	99	Kapiti Coast / Porirua	125	84
<i>Bay of Plenty</i>			Masterton / Carterton	145	82
Tauranga	123	78	Upper Hutt	74	99
Western Bay of Plenty	110	79	Hutt City	92	98
Rotorua	75	95	Wellington City	179	89
Whakatane / Kawerau	112	92	<i>Nelson-Marlborough / Tasman</i>		
<i>Gisborne</i>			Nelson / Tasman	164	93
Gisborne	196	100	Marlborough / Kaikoura	151	88
			<i>West Coast</i>		
			Westland / Buller / Grey	104	96

² Kaitiāia excluded from sample in 2007 due to sampling issues.

Table 4 continued. Child restraint wearing rates by Territorial Local Authority, 2007

Local authority / authorities	Children in sample	% in child restraints	Local authority / authorities	Children in sample	% in child restraints
<i>Canterbury</i>			<i>Southland</i>		
Christchurch	284	88	Gore	104	87
Waimakariri	20	Sample too small	Invercargill	130	90
Ashburton/Timaru	152	97			
<i>Otago</i>					
Waitaki / Clutha/ Central Otago	165	96			
Dunedin	160	100			

Police District Wearing Rates

National surveys are designed to provide a consistent measure of child restraint use over time, by surveying the same sites in each Police District each year. The child restraint wearing rates in each Police District are shown in Table 5. In 2007, at least 400 children were surveyed in each district, except in Northland (where 193 children were surveyed), Auckland (175 children) and in Counties-Manukau (155 children).

Child restraint wearing in Eastern, Canterbury and Southern Districts improved. Rates in Northland and Counties-Manukau declined, but did not decline below the national rate. No statistically significant change from 2006 was observed in the other Districts.

Table 5. Percentage of children in child restraints, by Police District (%)

Police District	1999	2000	2001	2002	2003	2004	2005	2006	2007
Northland	61	70	69	85	84	95	98	100	95
Waitemata	79	84	82	83	91	89	93	93	90
Auckland	71	81	82	88	86	88	86	84	89
Counties - Manukau	63	64	69	75	69	68	86	97	91
Waikato	80	80	83	87	91	86	90	86	87
Bay of Plenty	76	77	76	88	78	83	90	90	87
Eastern	63	68	86	88	81	91	96	87	94
Central	77	80	80	88	90	93	90	94	95
Wellington	81	81	84	80	90	89	91	92	91
Tasman	70	75	80	94	92	93	91	93	92
Canterbury	87	88	94	90	93	93	83	85	90
Southern	88	87	89	93	89	91	92	92	95
All NZ	75	79	82	86	86	87	89	91	91

Police Area Wearing Rates

Child restraint wearing rates at Police Area level are presented in Table 6. Sample sizes for many areas are relatively small compared to those for Police Districts and results should be treated with caution. For example, with a sample size of 100 and a wearing rate of 80%, the margin of error (based on a 95% confidence interval for the wearing rate) is approximately 8%. While a sample as small as this makes it difficult to detect small changes in the wearing rate from year to year, these results are useful as an indication of how much improvement is needed. No wearing rate has been estimated where fewer than 70 people were sampled.

Table 6. Child restraint wearing rates by Police Area, 2007

Police Area	Children in sample	% in child restraints	Police Area	Children in sample	% in child restraints
<i>Northland</i>			<i>Central</i>		
Far North	63 ³	Sample too small	New Plymouth	123	99
Whangarei	130	98	Taranaki Rural	167	91
<i>Waitemata</i>			Wanganui	119	99
Rodney/North Shore	300	91	Ruapehu/Wanganui	167	98
North Shore	254	92	Palmerston North Rural	90	89
Waitakere	132	89	Palmerston North City/Rural	118	96
<i>Auckland</i>			<i>Wellington</i>		
Auckland West	86	84	Kapiti - Mana	133	89
Auckland East	89	94	Wellington	144	88
<i>Counties / Manukau</i>			Lower Hutt	92	98
Counties-Manukau West/Central/East/South	155	91	Upper Hutt	74	99
<i>Waikato</i>			Wairarapa	145	82
Hamilton	246	88	<i>Tasman</i>		
Waikato East/West	304	86	Nelson Bays	164	93
Waikato West	252	84	Marlborough	151	88
<i>Bay of Plenty</i>			West Coast	104	96
Taupo	112	98	<i>Canterbury</i>		
Western Bay of Plenty	233	78	Northern Canterbury	115	93
Eastern Bay of Plenty	112	92	Christchurch Central	86	83
Rotorua	75	95	Southern Canterbury	152	97
<i>Eastern</i>			Mid-South Canterbury	103	86
Gisborne	263	97	<i>Southern</i>		
Napier	159	92	Dunedin	232	100
Hastings	108	92	Otago Rural	93	96
			Southland	234	88

³ Kaitia excluded from sample in 2007 due to sampling issues.