

## Cycle Helmet Wearing in 2006

### Abstract

Two observational surveys of bicycle helmet wearing rates were undertaken in September/October 2006, building on previous surveys conducted since 1994. The survey series enables changes in helmet wearing rates on major and minor built-up roads to be assessed over time and inform policy on the use of cycle helmets.

The 2006 surveys, conducted by Accent, comprised (1) a survey on major built-up roads, conducted previously in 1994, 1996, 1999, 2002 and 2004, and (2) a survey on minor built-up roads, conducted previously in 1999, 2002 and 2004.

### Main findings

The overall cycle helmet wearing rate on major roads has increased from 28.2% in 2004 to 30.7% in 2006. On minor roads, wearing rates are lower, but the overall rate has increased from 9.6% in 2004 to 13.8% in 2006. These changes broadly follow the pattern of steady increases over time that was shown in the previous surveys.

As in previous surveys, wearing rates vary significantly by age and gender. The 2006 surveys show that, on major roads, adult male and female cyclists have similar cycle helmet wearing rates. Girls are almost as likely to wear a helmet as adult male and female cyclists. However, although the cycle helmet wearing rate for boys has increased since 2004, boys remain less likely to wear a helmet than other groups:

- On major roads, the helmet wearing rate for adult male cyclists has increased from 28.8% in 2004 to 31.8% in 2006; the helmet wearing rate for adult female cyclists has increased from 29.7% in 2004 to 30.9% in 2006.
- On major roads, the helmet wearing rate for boys has increased from 10.8% in 2004 to 13.6% in 2006; the helmet wearing rate for girls has increased from 26.3% in 2004 to 29.2% in 2006.

On minor roads, the cycle helmet wearing rates for adult female cyclists and girls have shown large increases since 2004. Adult female cyclists and girls are more likely to wear a helmet than adult male cyclists and boys:

- On minor roads, the helmet wearing rate for adult male cyclists has increased from 10.9% in 2004 to 13.4% in 2006; the helmet wearing rate for adult female cyclists has increased from 13.1% in 2004 to 21.8% in 2006.
- On minor roads, the helmet wearing rate for boys has increased from 5.4% in 2004 to 6.4% in 2006; the helmet wearing rate for girls has increased from 11.4% in 2004 to 18.4% in 2006.

## Background

The cycle helmet wearing surveys in 2006 build on previous surveys undertaken between 1994 and 2004. The surveys included only major roads in 1994 and 1996. From 1999, an additional component was incorporated covering minor roads.

As in previous years, the research comprised observational surveys of actual pedal cycle helmet wearing rates to enable changes in cycle helmet wearing rates to be assessed over time and inform policy on the use of cycle helmets. The surveys were not designed to be nationally representative of all cyclists.

## Research findings

In the 2006 major roads survey, the overall cycle helmet wearing rate was 30.7%, compared with 28.2% in 2004. In the 2006 minor roads survey, 13.8% of all cyclists were observed wearing a helmet, compared with 9.6% in 2004. For both surveys, this represents a statistically significant increase in the cycle helmet wearing rate between 2004 and 2006.

Between 2004 and 2006 there was a statistically significant increase in the level of cycle helmet wearing among adults and children on both major and minor roads. On major roads, cycle helmet wearing among adults increased from 29.0% to 31.5% and among children from 14.1% to 17.6%. On minor roads, cycle helmet wearing among adults increased from 11.3% to 15.5% and among children from 6.4% to 9.4%.

Between 2004 and 2006 there was a statistically significant increase in cycle helmet wearing rates among males on major roads, and among male and female cyclists on minor roads. The cycle helmet wearing rate among male cyclists on major roads increased from 27.6% in 2004 to 30.6% in 2006. On minor roads, the cycle helmet wearing rate increased from 9.0% to 11.5% for male cyclists and from 12.5% to 20.8% for female cyclists. The wearing rate for female cyclists on major roads increased from 29.6% in 2004 to 30.8% in 2006, but this was not statistically significant.

As in previous surveys, wearing rates vary significantly when age and gender are analysed together (Figure 1). The 2006 survey shows that, on major roads, adult male and female cyclists have similar cycle helmet wearing rates. Girls are

almost as likely to wear a helmet as adult male and female cyclists. However, although the cycle helmet wearing rate for boys has increased since 2004, they remain less likely to wear a helmet than other groups:

- On major roads, the helmet wearing rate for adult male cyclists has increased from 28.8% in 2004 to 31.8% in 2006; the helmet wearing rate for adult female cyclists has increased from 29.7% in 2004 to 30.9% in 2006.
- On major roads, the helmet wearing rate for boys has increased from 10.8% in 2004 to 13.6% in 2006; the helmet wearing rate for girls has increased from 26.3% in 2004 to 29.2% in 2006.

On minor roads, the cycle helmet wearing rates for adult female cyclists and girls have shown large increases since 2004. Adult female cyclists and girls are more likely to wear a helmet than adult male cyclists and boys:

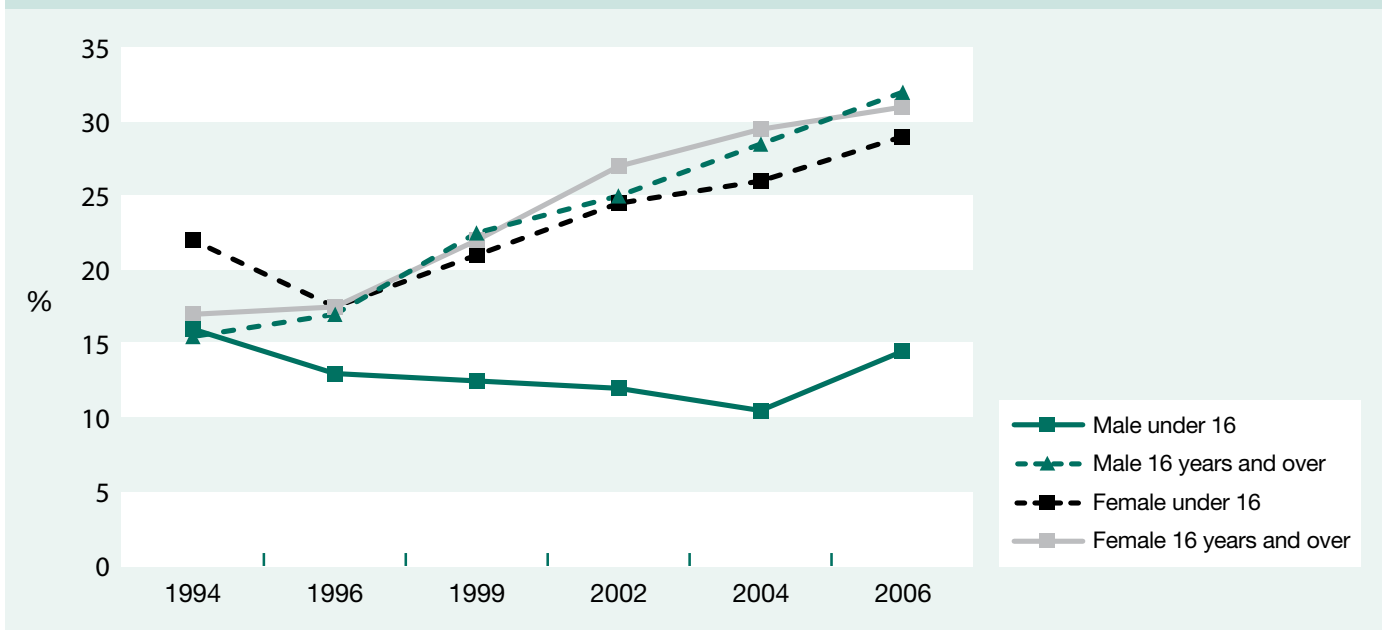
- On minor roads, the helmet wearing rate for adult male cyclists has increased from 10.9% in 2004 to 13.4% in 2006; the helmet wearing rate for adult female cyclists has increased from 13.1% in 2004 to 21.8% in 2006.
- On minor roads, the helmet wearing rate for boys has increased from 5.4% in 2004 to 6.4% in 2006; the helmet wearing rate for girls has increased from 11.4% in 2004 to 18.4% in 2006.

Between 2004 and 2006, the cycle helmet wearing rate has increased for cyclists from most ethnic groups. However, because of the small sample sizes for several ethnic groups, the changes were only statistically significant for the White ethnic group.

In 2006, on major roads, there was a significant increase in cycle helmet wearing rates on racing bikes, traditional town bikes and mountain/BMX bikes. The wearing rate for racing bikes increased from 45.6% in 2004 to 48.7% in 2006. The rate for mountain/BMX bikes increased from 26.9% in 2004 to 28.5% in 2006, and the rate for traditional bikes increased from 23.8% in 2004 to 26.2% in 2006. On minor roads, the wearing rate for mountain/BMX bikes increased from 7.8% to 12.9%. Changes for racing and traditional town bikes on minor roads were not statistically significant.

Cycle helmet wearing rates have also been analysed by time of day. On major roads, cycle helmet

Figure 1: Cycle helmet wearing rates on major roads 1994–2006



wearing rates at peak times steadily increased from 19.4% in 1994 to 34.7% in 2004, but remained broadly level in 2006 (34.4%). At off-peak times, wearing rates increased steadily from 11.3% in 1994 to 17.6% in 2004, and continued to increase to 24.0% in 2006. On minor roads, the cycle helmet wearing rate during weekday off-peak times increased from 8.7% in 2004 to 13.9% in 2006. The cycle helmet wearing rate at weekends increased from 6.5% in 2004 to 10.7% in 2006. There was no statistically significant change in the wearing rate during weekday peak times.

On major roads in 2006, a cycle helmet wearing rate of 32.1% was observed in wet weather conditions, 31.0% in dry weather conditions and 28.7% in mixed weather conditions, compared with 37.0%, 26.8% and 42.4% respectively in 2004. On minor roads in 2006, a cycle helmet wearing rate of 13.8% was observed in wet weather conditions, 14.4% in dry weather conditions and 7.1% in mixed weather conditions. The changes from 2004 were not statistically significant for any weather condition.

The cycle helmet wearing rate in Central London is more than double the rate for non-Central London locations. On major roads, the cycle helmet wearing rate in Central London decreased from 62.1% in 2004 to 60.6% in 2006, although this change is not statistically significant. Outside Central London, the cycle helmet wearing rate increased from 24.5% in 2004 to 27.2% in 2006. Although only three locations are surveyed in Central London, the difference between locations in Central London and

other sites is statistically significant.

In the major roads survey, the proportion of cyclists wearing helmets on two designated recreational routes increased from 31.6% in 2004 to 39.4% in 2006. The proportion of children wearing helmets on these routes increased from 38.6% in 2004 to 54.2% in 2006. The proportion of cyclists wearing helmets on other routes increased from 28.3% in 2004 to 30.5% in 2006.

In the minor roads survey, the cycle helmet wearing rate of those riding on the road increased from 12.0% in 2004 to 13.9% in 2006. In contrast, the rate for those cycling on the pavement or on the grass verge at the side of the road more than doubled from 5.3% in 2004 to 11.6% in 2006.

In the 2006 minor roads survey, the cycle helmet wearing rate was 24.9% for cyclists with additional safety aids, such as fluorescent jackets, front/rear lights and reflectors, compared with 10.2% for cyclists without any of these additional safety aids. This compares with wearing rates in 2004 of 16.2% and 8.2% respectively for cyclists with and without additional safety aids.

In 2006, the cycle helmet wearing rate for children in school uniform was 19.5%, compared with 7.8% for children not in school uniform.

As in previous surveys, very young children are more likely to wear helmets than older children. In the 2006 minor roads survey, the cycle helmet wearing rate was 22.7% for infants aged 0–6, 7.3%

for junior school children aged 7–10, and 9.1% for secondary school children aged 11–16.

## Conclusions

The overall level of cycle helmet wearing increased significantly between 2004 and 2006 on both major and minor roads. In 2006, the wearing rate on major roads was 30.7% compared with 28.2% in 2004. On minor roads, the wearing rate increased from 9.6% in 2004 to 13.8% in 2006.

When analysed by age and gender, wearing rates have increased for adult males, adult females, boys and girls on both major and minor roads. In 2006, wearing rates on major roads range from 13.6% for boys to 31.8% for adult males. On minor roads, wearing rates range from 6.4% for boys to 21.8% for adult females.

## About the project

In the 2006 major roads survey, 20,770 cyclists were observed at the sites previously surveyed, compared with the 2004 survey when 22,781 cyclists were observed. In the 2006 minor roads survey, 4,473 cyclists were observed, compared with 4,114 cyclists in 2004.

The Department for Transport supplied maps to ensure that the same 79 major route locations in England, Scotland and Wales, and the same 20 minor route circuits in England, were used as in previous surveys. The 2006 survey was again conducted in the autumn, to ensure consistency with the previous surveys, using Accent's in-house survey team. The in-house survey staff were able to familiarise themselves with the areas prior to undertaking the fieldwork.

The major built-up roads survey was a fixed site survey and all sites were surveyed on weekdays, with the exception of recreational routes which were observed on Sundays. Observations were made continuously at each location, either from 07:00 to 13:00 or from 13:00 to 19:00, with afternoon and morning shifts balanced over the sample. For the minor roads survey, a moving observer technique was utilised, with interviewers working in pairs and, at appropriate times, swapping the driving and recording roles. The method involved observations conducted in a one-kilometre square on one weekday and one weekend day for each location, using a similar shift pattern to the major roads survey.

## Further information

The full report, **Cycle Helmet Wearing in 2006** by Accent, is published by the Department for Transport (ISBN 978 11 904763 86 4, price £19.00).

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