

County of Santa Cruz Health Services Agency Bicycle Safety Education Program

BICYCLE SAFETY OBSERVATION STUDY 2007

BACKGROUND

The County of Santa Cruz Health Services Agency has been working over the years to reduce bicycle-related injuries in Santa Cruz County. During the months of May and June in 2007, health education staff and community volunteers conducted a countywide bicycle safety observation survey to evaluate the impact of educational efforts on bicyclists' behavior. A total of 22 staff and volunteers collected data on helmet use, riding with traffic, stopping at stop signs/lights, and riding on the sidewalk at 37 locations throughout Santa Cruz County. This data was then compared with similar studies done in 1998, 2003, and 2006.

METHOD OF DATA COLLECTION

All of the observation locations for the 2007 survey were the same used in the 2003 and 2006 observation surveys so that the data would be comparable. There were three types of locations: commuter, school, and weekend. The commuter sites were observed on weekdays from 4:00 pm to 6:00 pm. School sites were observed 45 minutes before school started until 15 minutes after school began on a weekday morning. Weekend sites were observed from 11:00 am to 1:00 pm on a Saturday or Sunday. There were 24 observation sites located in North County and 13 in Watsonville. Each observer had a sheet to collect data that included approximate age, sex, wearing a helmet, riding with traffic, stopped at stop sign/light, and riding on the sidewalk. Also recorded were date, day of the week, and weather conditions.

2007 RESULTS

A total of 2,616 bicyclists were observed. Significant overall findings this year included:

- 75% of cyclists were men, 25% were women
- Females wore helmets at a rate of 48% compared to men at 36%
- Watsonville had a helmet use rate of 15% compared to 42% for North County
- 84% of cyclists rode with traffic on the right side of the road
- 63% of cyclists stopped at stop signs and lights
- 25% of cyclists rode on the sidewalk

Tables 1, 2 and 3 summarize the results from the 2007 survey.

Table 1: Santa Cruz County, All Sites (37 total)

	Sample Size	%	Wore a Helmet	Rode with Traffic	Stopped at signs/ lights	Rode on sidewalk
Total Bicyclists	2616	100%	39%	84%	63%	25%
Males	1962	75%	36%	82%	62%	27%
Females	641	25%	48%	88%	67%	18%
Children (0-12 yrs)	115	4%	41%	58%	72%	75%
Teens (13-17 yrs)	299	11%	31%	76%	58%	52%
Young Adults (18-24 yrs)	709	27%	31%	86%	65%	20%
Adults (25+ yrs)	1483	57%	45%	86%	63%	18%

Table 2: North County Sites (24 total)

	Sample Size	%	Wore a Helmet	Rode with Traffic	Stopped at signs/ lights	Rode on sidewalk
Total Bicyclists	2315	100%	42%	86%	62%	20%
Males	1683	73%	40%	85%	61%	21%
Females	621	27%	47%	88%	66%	17%
Children (0-12 yrs)	79	3%	51%	57%	70%	72%
Teens (13-17 yrs)	242	10%	36%	77%	55%	48%
Young Adults (18-24 yrs)	655	28%	32%	88%	65%	15%
Adults (25+ yrs)	1331	57%	48%	88%	62%	14%

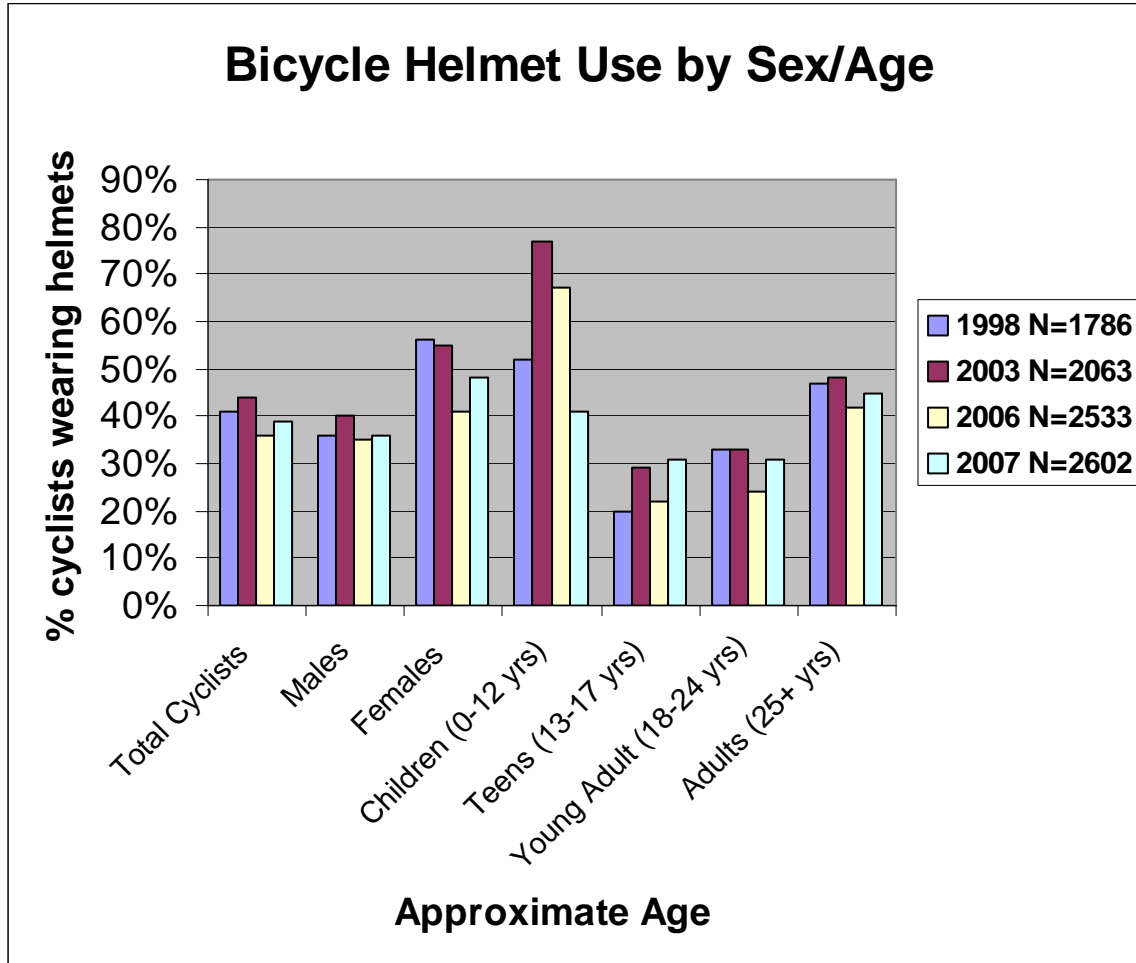
Table 3: Watsonville Sites (13 total)

	Sample Size	%	Wore a Helmet	Rode with Traffic	Stopped at signs/ lights	Rode on sidewalk
Total Bicyclists	300	100%	15%	67%	72%	63%
Males	279	93%	10%	66%	70%	64%
Females	20	7%	75%	80%	88%	45%
Children (0-12 yrs)	36	12%	19%	63%	79%	80%
Teens (13-17 yrs)	57	19%	11%	69%	74%	68%
Young Adults (18-24 yrs)	54	18%	19%	67%	62%	73%
Adults (25+ yrs)	152	51%	68%	68%	73%	52%

COMPARISON TO PREVIOUS DATA

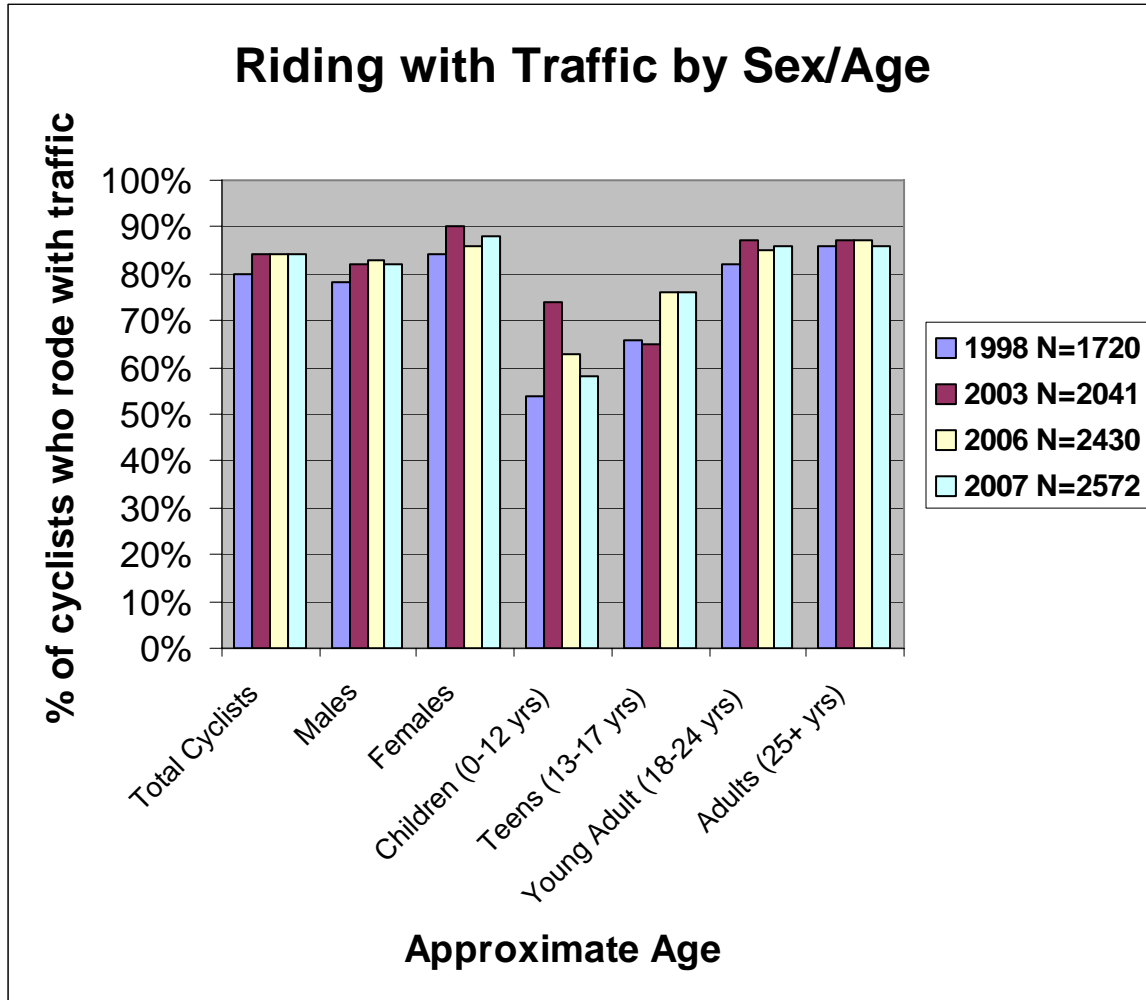
The tables below compare the data over nine years for four observational surveys that looked at helmet use, riding with traffic and stopping at stop signs/lights broken down by gender and a range of age groups. Riding on the sidewalks was not measured in 1998, so it was not used in the following comparison charts.

Changes in Bicycle Helmet Use



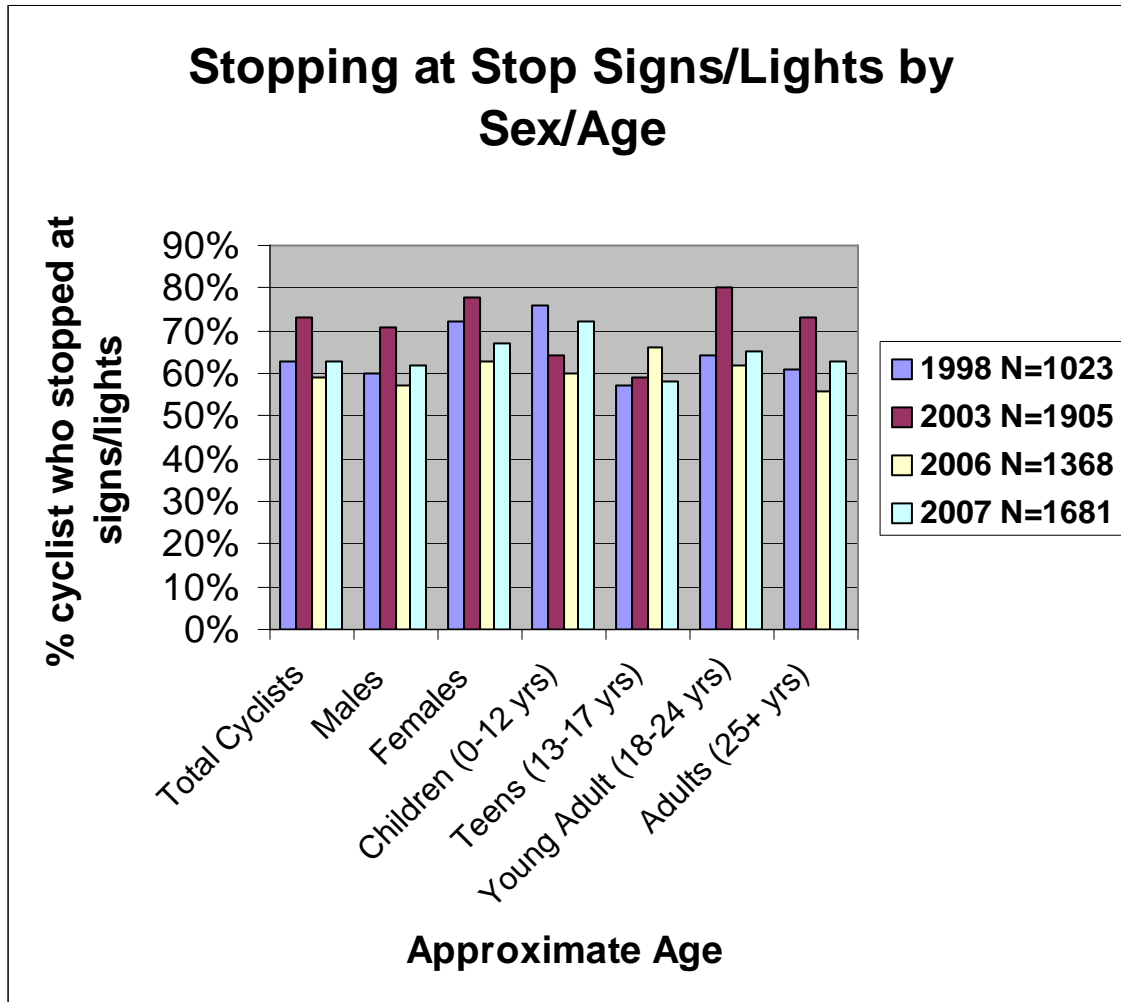
Overall helmet use increased from 36% in 2006 to 39% in 2007. For 2007, helmet use increased in all groups except for children aged 0 to 12 years, where a significant drop in helmet use occurred. A decrease in helmet use among children has taken place over the past three years surveyed, from 77% in 2003 to 67% in 2006 to 41% in 2007. The greatest increase in helmet use over the four years surveyed was for teens from 20% in 1998 to 31% in 2007. Females have consistently worn helmets at a higher rate than males.

Changes in Riding with Traffic



Riding with traffic remained similar over the four years surveyed for all demographic groups except children. Children riding with traffic has declined over the past three survey years from 74% in 2003 to 63% in 2006 to 58% in 2007. The greatest improvement in riding with traffic for 2006 was with teens from 65% in 2003 to 76% in 2006 and 2007.

Changes in Stopping at Stop Signs/Lights



The percentage of bicyclists who stopped at stop signs/lights increased for all groups surveyed from 2006 to 2007 except for teens. While teens had been improving through 2006, they had a significant decrease from 66% in 2006 to 58% in 2007. The greatest increase was with children from 60% in 2006 to 72% in 2007, which was a reversal of their trend in previous surveys.

CONCLUSIONS AND RECOMMENDATIONS

The County of Santa Cruz Health Services Agency (HSA) conducted a bicycle safety observation survey in May and June of 2007 with the intent of evaluating the impact of the traffic safety projects of HSA and collaborating agencies on bicyclists' behavior. The survey looked at helmet use, riding with traffic, stopping at signs/lights, and riding on the sidewalk. Similar surveys were conducted in 1998, 2003, and 2006.

When comparing the data over the years surveyed, there have been some areas of improvement. Overall helmet use has been increasing and more cyclists are riding with traffic and stopping at stop signs/lights. Based on the results of this survey, other areas need continued efforts toward improvement, such as increasing the number of children wearing a helmet when riding, increasing helmet use in Watsonville, and increasing the number of teens stopping at stop signs/lights.

The County of Santa Cruz HSA along with the Transportation Division of Ecology Action, including BikeSmart!, have many programs in place to address bicycle safety. The Community Traffic Safety Coalition (CTSC) funded by the Santa Cruz County Regional Transportation Commission (SCCRTC) is now launching a bicycle traffic school for the county. In the 2006 to 2007 school year, the CTSC affiliated Ride n' Stride program conducted bicycle safety presentations for approximately 4,000 elementary school students throughout the county. Through a grant from the California Office of Traffic Safety (OTS), Ecology Action staff has conducted approximately 100 bicycle safety presentations targeting middle and high school students, college students, and parents. Also through the OTS grant, staff at HSA fit and distributed 1,000 bicycle helmets over the past two years.

With these collaborative efforts, new programs have also been developed. An additional grant program through OTS is underway for 2007 through 2009, which will have a new focus on share the road awareness for motor vehicle drivers. A new Safe Routes to School (SRTS) program will also begin soon with increased bicycle and pedestrian safety presentations for elementary schools, coordinated efforts with law enforcement to enforce safe pedestrian and bicyclist behavior, and the development of new Safe Routes to School maps for schools.

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