

County of Santa Cruz Health Services Agency Bicycle Safety Education Program

BICYCLE SAFETY OBSERVATION STUDY 2008

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 2008, 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 27 staff and volunteers collected data on helmet use, riding with traffic, stopping at stop signs/lights, and riding on the sidewalk at 38 locations throughout Santa Cruz County. This data was then compared with similar studies done in 1998, 2003, 2006, and 2007.

METHOD OF DATA COLLECTION

All of the observation locations for the 2008 survey were the same used in previous observation surveys, except for the school sites. A Santa Cruz school was removed and a mid-county and a Watsonville school were added. 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 this year were observed for an hour before school started 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 14 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.

2008 RESULTS

A total of 2,583 bicyclists were observed. Significant overall findings this year included:

- 74% of cyclists were men, 26% were women
- Females wore helmets at a rate of 47% compared to men at 37%
- Watsonville had a helmet use rate of 11% compared to 44% for North County
- 83% of cyclists rode with traffic on the right side of the road
- 69% of cyclists stopped at stop signs and lights
- 26% of cyclists rode on the sidewalk

Tables 1, 2 and 3 summarize the results from the 2008 survey.

Table 1: Santa Cruz County (All 38 Sites)

	Sample Size	%	Wore a Helmet	Rode with Traffic	Stopped at signs/ lights	Rode on sidewalk
Total Bicyclists	2583	100%	40%	83%	69%	26%
Males	1911	74%	37%	81%	69%	29%
Females	659	26%	47%	90%	67%	16%
Children (0-12 yrs)	85	3%	65%	63%	94%	59%
Teens (13-17 yrs)	281	11%	36%	71%	61%	63%
Young Adults (18-24 yrs)	649	25%	30%	83%	70%	21%
Adults (25+ yrs)	1561	60%	43%	87%	68%	19%

Table 2: North County Sites (24 total)

	Sample Size	%	Wore a Helmet	Rode with Traffic	Stopped at signs/ lights	Rode on sidewalk
Total Bicyclists	2276	100%	44%	86%	67%	19%
Males	1624	71%	42%	85%	68%	20%
Females	641	28%	47%	90%	66%	15%
Children (0-12 yrs)	64	3%	77%	61%	95%	47%
Teens (13-17 yrs)	235	10%	41%	73%	59%	56%
Young Adults (18-24 yrs)	591	26%	32%	87%	71%	15%
Adults (25+ yrs)	1378	61%	48%	90%	66%	12%

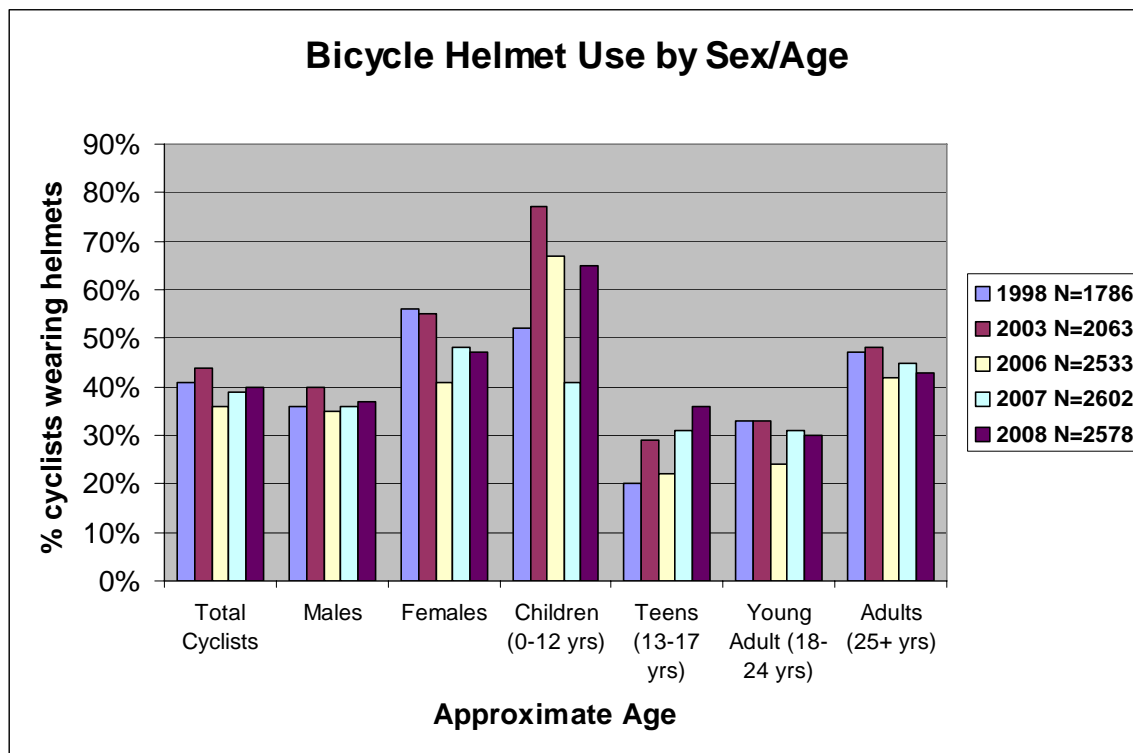
Table 3: Watsonville Sites (14 total)

		%	Wore a Helmet	Rode with Traffic	Stopped at signs/ lights	Rode on sidewalk
Total Bicyclists	307	100%	11%	61%	78%	75%
Males	287	93%	9%	60%	77%	77%
Females	17	6%	53%	88%	86%	53%
Children (0-12 yrs)	21	7%	27%	67%	92%	90%
Teens (13-17 yrs)	46	15%	11%	64%	71%	93%
Young Adults (18-24 yrs)	58	19%	7%	41%	63%	79%
Adults (25+ yrs)	182	59%	11%	66%	81%	67%

COMPARISON TO PREVIOUS DATA

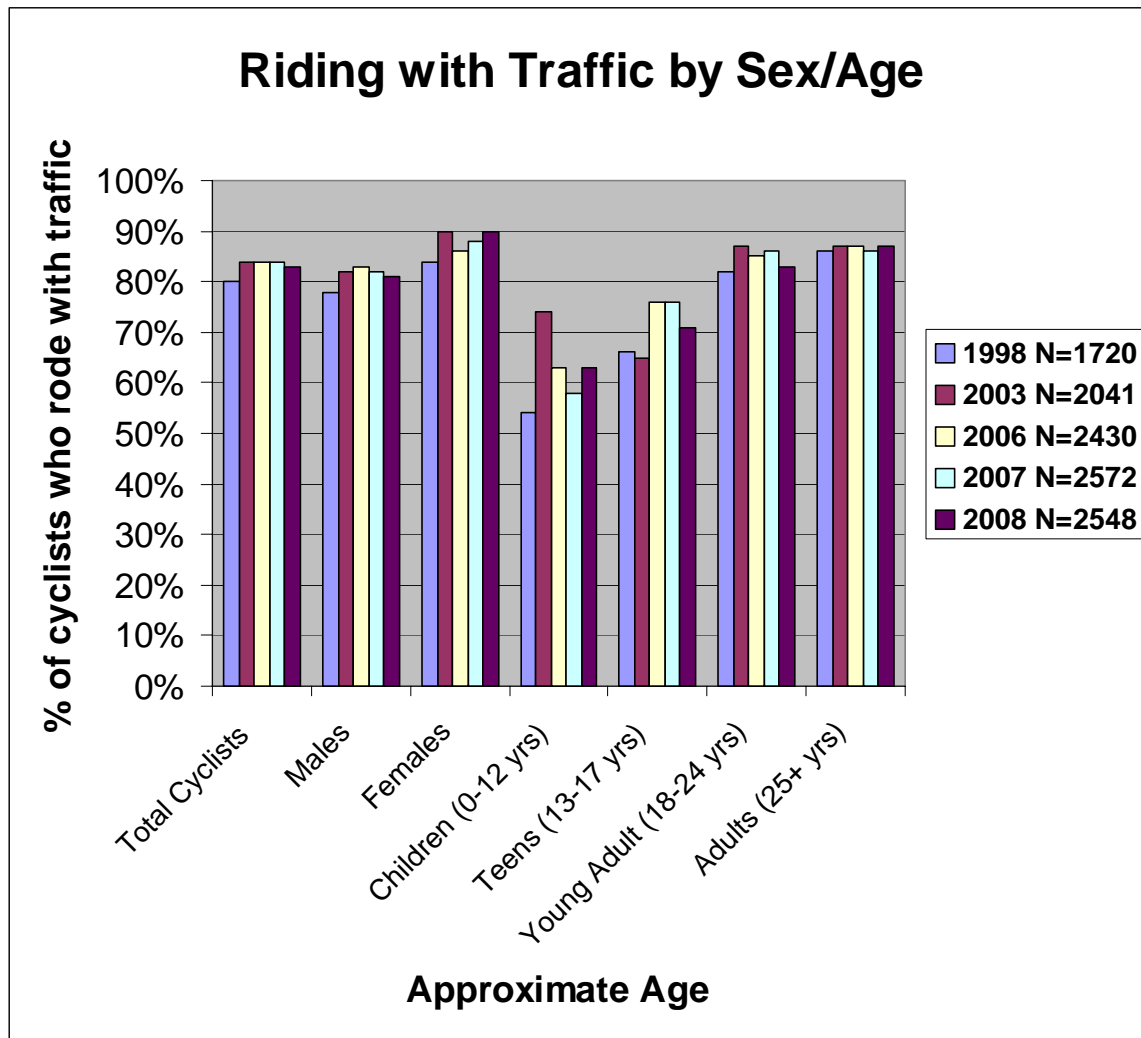
The tables below compare the data over nine years for four observational surveys that looked at helmet use, riding with traffic and stopping at stop signs/lights broken down by gender and a range of age groups. Riding on the sidewalks was not measured in 1998, so it was not used in the following comparison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

Changes in Bicycle Helmet Use



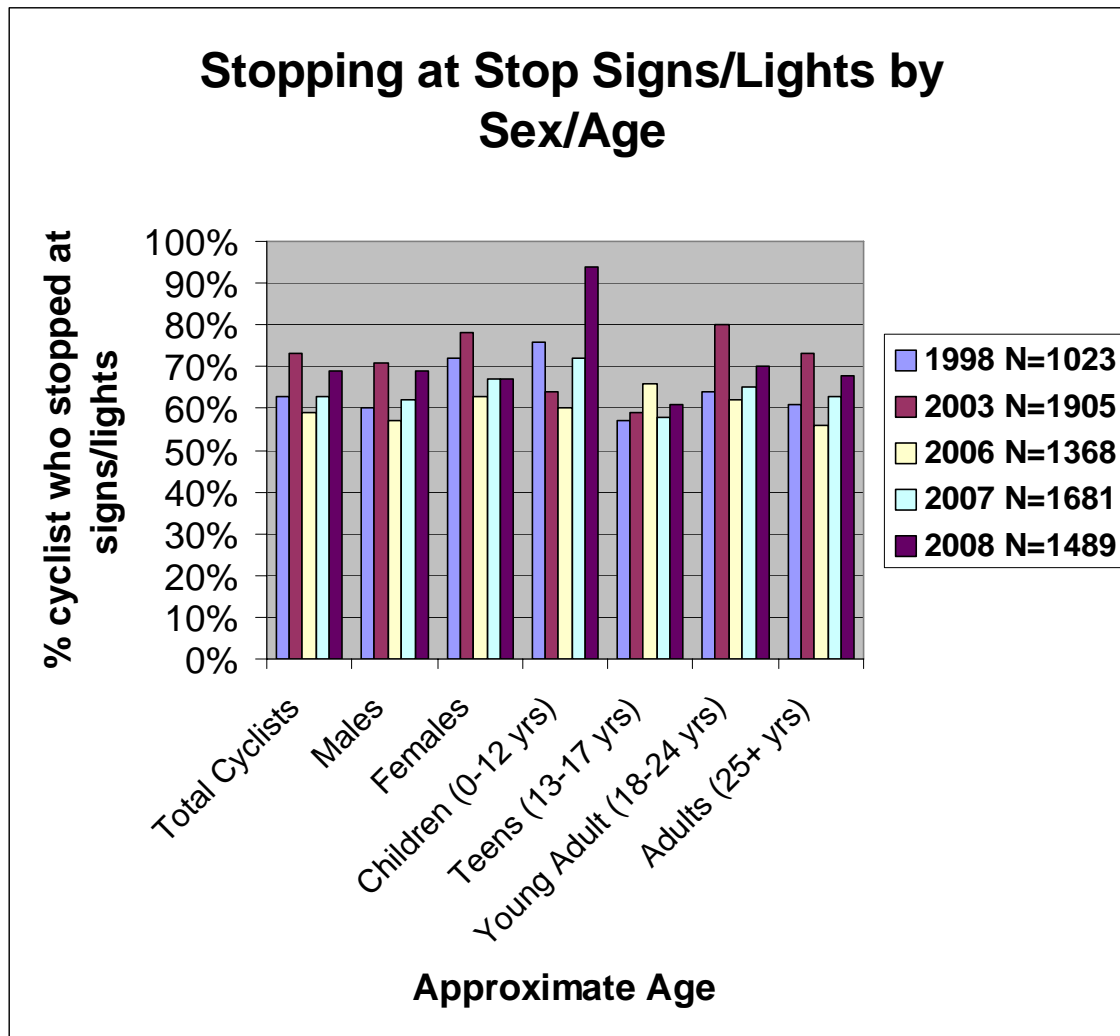
Overall helmet use for the county increased slightly from 39% in 2007 to 40% in 2008. A decrease in helmet use among children has taken place over the previous three years surveyed, but saw an increase this year to 65% from 41% in 2007. An increase in helmet use took place for teens from 31% in 2007 to 36% in 2008. 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 and teens. Children who were riding with traffic has declined over the previous survey years, but saw an increase this year to 63% from 58% in 2007. There was a decrease in riding with traffic for teens from 76% in 2007 to 71% in 2008.

Changes in Stopping at Stop Signs/Lights



The percentage of bicyclists who stopped at stop signs/lights remained the same or increased for all groups surveyed from 2007 to 2008. While teens had a significant decrease from 66% in 2006 to 58% in 2007, they saw an increase to 61% in 2008. The greatest increase was with children from 72% in 2007 to 94% in 2008.

CONCLUSIONS AND RECOMMENDATIONS

The County of Santa Cruz Health Services Agency (HSA) conducted a bicycle safety observation survey in May and June of 2008 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, 2006 and 2007.

When comparing the data over the years surveyed, there have been some areas of improvement. Overall helmet use and stopping at stop signs/lights have been steadily increasing over the past three years surveyed. The number of those riding with traffic has remained fairly steady over the last four years surveyed. Based on the results of this years' survey, other areas need improvement, such as increasing the number of young adults and adults wearing a helmet when riding, increasing helmet use in Watsonville, and increasing the number of teens and young adults riding with traffic.

The County of Santa Cruz HSA along with the Transportation Division of Ecology Action, including Bike Smart!, have many programs in place to address bicycle safety. In the 2007 to 2008 school year, the CTSC affiliated Ride n' Stride program conducted bicycle and pedestrian safety presentations for approximately 3,000 children at 23 elementary schools and 9 preschool centers throughout the county. Through a grant from the California Office of Traffic Safety (OTS), Ecology Action and HSA staff has conducted 22 bicycle safety presentations reaching just over 900 middle and high school students, college students, parents, and adults in the 07/08 FFY. 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. The Community Traffic Safety Coalition (CTSC) funded by the Santa Cruz County Regional Transportation Commission (SCCRTC) began a bicycle traffic school for the county in January 2008 with 100 participants in the first year. 85% of those participants said they plan to change the way they ride a bicycle. Ecology Action and HSA have a new Safe Routes to School (SRTS) program now underway with increased bicycle and pedestrian safety presentations and bike and walk to school encouragement programs. A proposal for additional grant funding through OTS has been submitted for the 09/11 FFY, which will focus on bicycle, pedestrian and child passenger safety.

Funding for this project was provided by a grant from the California Office of Traffic Safety, through the National Highway Traffic Safety Administration. For more information, please contact the Community Traffic Safety Coalition c/o the Chronic Disease and Injury Prevention Unit of the County of Santa Cruz Health Services Agency at 1070 Emeline Avenue, Santa Cruz, CA 95060, (831) 454-4312.