Executive Highlights:
Evaluation of the 2008 Sacramento Region Spare The Air Campaign

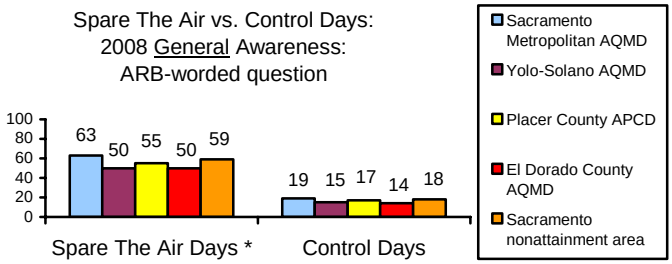
METHODOLOGY:

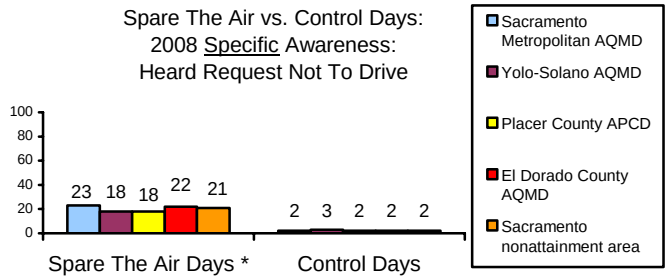
Based on projected AQI estimates, Spare The Air days are called throughout the entire nonattainment area whenever the AQI is forecasted to reach or exceed 150 anywhere in the Sacramento region. Residents from four air quality management districts in the Sacramento nonattainment area were interviewed for this annual evaluation. A total of 705 (312 when weighted proportionately) interviews were conducted following each of the three August Spare The Air days. Interviewing did not take place during the five Spare The Air days in July due to possible confounding with smoke from wildfires. On non-Spare The Air (or Control) days 1,203 (455 weighted) interviews were conducted on matched days of the week.

SUMMARY RESULTS:

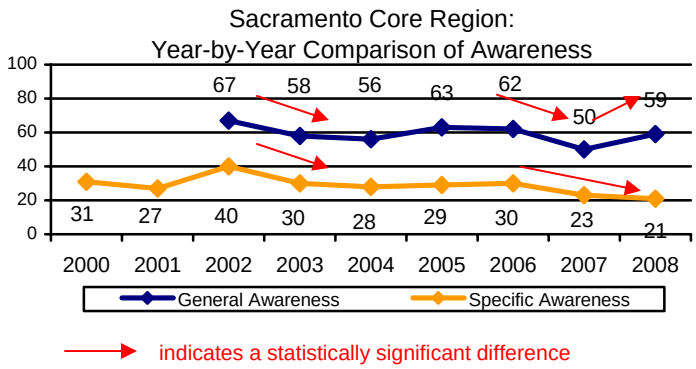
Awareness:

- *Fifty-nine percent (59%) of respondents in the Sacramento region heard Spare The Air announcements in the summer of 2008 (general awareness). Only twenty-one percent of respondents remembered hearing the specific request not to drive on Spare The Air days.*
- *Adjusting for Control day responses, results indicate that over half a million (591,000) drivers in the nonattainment area noticed the general advisory. In terms of specific awareness, and again correcting for Control day responses, an estimated quarter of a million (274,000) drivers in the region remembered hearing the specific request not to drive on Spare The Air days.*



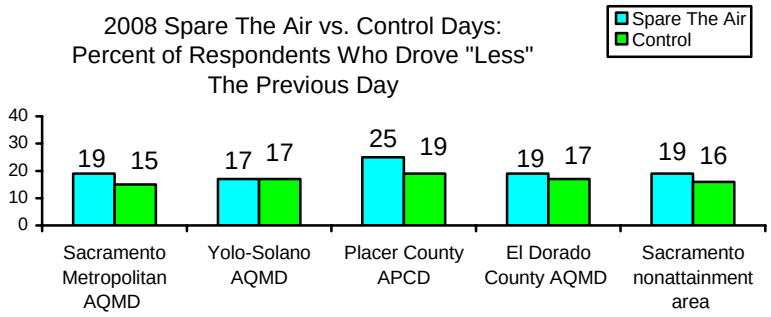


- *General awareness of Spare The Air is up relative to last year. Specific awareness is the same as last year.*

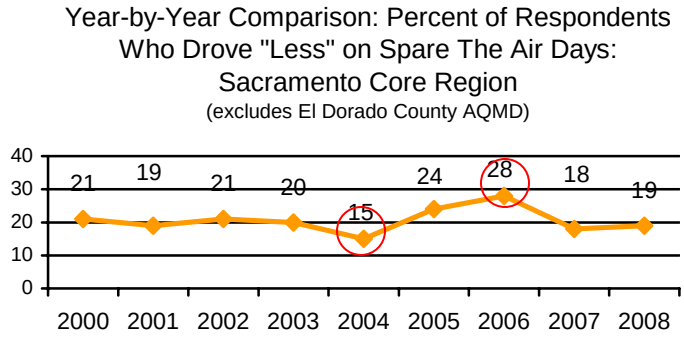


Driving Reduction:

- *The percentage of respondents who said they drove less on Spare The Air days was higher (19%) than the percentage interviewed on Control days (16%) in the Sacramento nonattainment area as a whole, but the difference was not statistically significant.*



- *With the exception of 2004 through 2006, the proportion of respondents who drove less has been relatively stable, at approximately one-in-five.*



- *The percent of purposeful reducers in the nonattainment area was **0.6%**: these are respondents who were classified as having purposefully driven less on Spare The Air days because they wanted to improve air quality in the region and were aware of the Spare The Air advisories. Although this is the lowest percentage of purposeful reducers in nine years, the differences are not statistically significant.*
- *When extrapolated to the population, about 8,650 drivers purposefully made fewer trips on Spare The Air days. They avoided 1.7 single trips, translating into a total of 14,705 trips purposefully avoided. There were no drivers who specifically avoided making trips for air quality reasons on Control days, indicating that all measured driving reduction for air quality reasons occurred on Spare The Air days in 2008.*

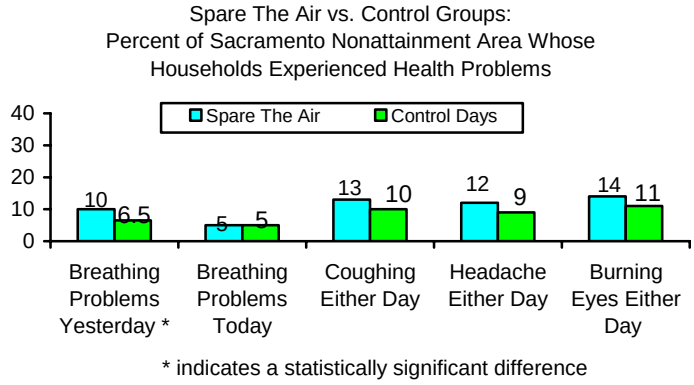
Estimated Emission Reductions:

- *The 2008 Spare The Air program was successful in reducing air pollution in the entire Sacramento nonattainment area by an estimated 0.09 tons of ozone precursors per day. This is due specifically to drivers purposefully reducing the number of trips they took on Spare The Air days for air quality reasons.*

Sacramento nonattainment Area	Percent of Respondent Drivers who Drove Less for Air Quality Reasons	x Number of Licensed Drivers in SNA (1,442,105 Total)	x Mean Number of Single Trips Reduced Per Day	x 5.31 Grams of Ozone Precursors Per Trip (EMFAC 2007 V2.3) 2008 Model	= Estimated Tons Per Day of Ozone Precursors Reduced
Spare The Air Days	0.6% (2 / 312)	8,650	x 1.7 = 14,705	78,084 grams	0.09 tons
Control Days	0.0% (0 /455)	0	0	0 grams	0 tons
Estimated Tons of Ozone Precursors Reduced Per Day: (STA Day Reductions – Control Day Reductions)					***0.09 tons***

Health Effects:

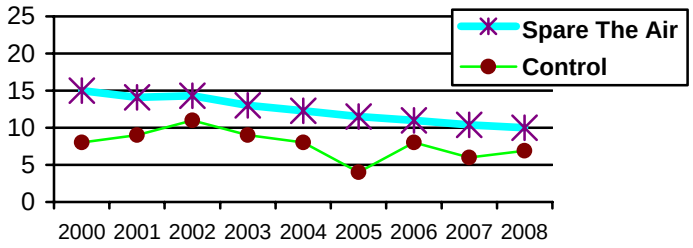
- *Approximately 10% of households in the Sacramento nonattainment area experienced breathing difficulties on Spare The Air days in 2008, significantly more than the 6.5% of households interviewed on Control days. Correcting for Control day responses, this translates into 29,794 households that were affected specifically by ozone pollution on Spare The Air days in the entire region.*



* indicates a statistically significant difference

- *The percentage of households reporting breathing difficulties in the Sacramento Core Region on Spare The Air days has declined when compared to the year 2000, when 15% of households experienced problems.*

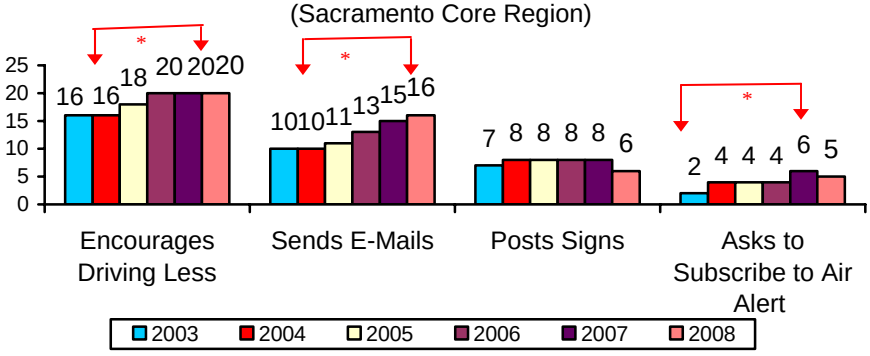
Year-to-Year Comparison of Percent of Respondents
Whose Households Experienced Breathing Difficulties
on Spare The Air Days: Sacramento Core Region
(excludes El Dorado AQMD)



Employer Participation:

- *Employer participation in the Spare The Air program has remained stable at 20% for the last three years, significantly higher than it was in 2003 and 2004 (both 16%). More employers are using e-mail to tell their employees about poor air quality days now (16%) than in 2003 and 2004. Approximately 6% of employers post signs. Almost the same percentage (5%) asks their employees to register to receive Air Alert notifications.*

Employer Participation Since 2003
(Sacramento Core Region)



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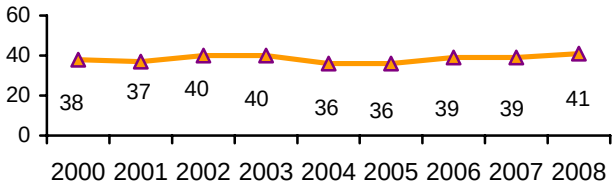
Summertime Seasonal Trip Reductions:

- *Approximately four-in-ten (41%) of all respondents in the Sacramento nonattainment Area are seasonal reducers – that is, they say they usually reduce the amount of driving they do during the summer to avoid adding to air pollution. This proportion has remained stable over the past nine years.*

Year-To-Year Comparison of Percent of Respondents Who Seasonally Reduce Driving to Avoid Adding to Air Pollution: Sacramento Core Region



- *These reducers reported entering their cars significantly fewer times than those respondents who said they did not usually reduce driving during the summer, making on average, 0.4 of a trip less per day than non-reducers.*

Year	*Seasonal Driving Reducers: Mean # Times Entered Vehicle*	*Non-Reducers: Mean # Times Entered Vehicle*	*Difference (Mean Number of Daily Single Trips Avoided by Seasonal Reducers*	*Statistically Significant Difference?*
2000	3.6	4.1	0.5	Yes
2001	3.1	4.2	1.1	Yes
2002	3.1	4.1	1.0	Yes
2003	3.1	4.2	1.1	Yes
2004	3.4	3.9	0.5	Yes
2005	3.0	3.5	0.5	Yes
2006	2.9	3.6	0.7	Yes
2007	3.2	3.8	0.6	Yes
2008	2.9	3.3	0.4	Yes

- *These avoided trips could translate into an estimated 1.4 tons of emission precursor reductions per summer day in 2008. Air quality management districts may want to document and use the additional estimated emission reductions by those who may not otherwise qualify as episodic reducers on Spare The Air days for methodological reasons.*