

**Summary:**

## **Effects of the “Speak out!” road safety campaign on the number of killed or injured road users in Sogn og Fjordane county, Norway**

This report contains an evaluation of the effects on the number of killed or injured road users of the “Speak out!” road safety campaign in Sogn og Fjordane county in Norway. The campaign was launched in 1993 and gradually became more intense from 1993 until 1995. It has since been carried out every year. The main objective of the campaign is to reduce the number of road accidents among teenagers, in particular those who are between 16 and 19 years old.

The campaign appeals to passengers riding in cars to “Speak out!” about dangerous driving, by telling drivers to drive more carefully. It consists of a combination of information and enforcement. Information is given in schools, enforcement has generally taken the form of roadside checks, carried out by the police and officers of the Public Roads Administration together. The effects of the campaign on the number of people killed or injured in road accidents was evaluated by carrying out three types of study:

- A) A before-and-after study with a matched comparison group. The matched comparison group was the county of Møre og Romsdal, the neighbouring county of Sogn og Fjordane.
- B) A before-and-after study with a general comparison group. The general comparison group consisted of all other counties in Norway (except Sogn og Fjordane), 18 altogether.
- C) A multivariate analysis (Poisson regression analysis), in which the effects of factors that influence the number of people injured in road accidents, including the “Speak out!” campaign, were estimated statistically.

All three approaches to evaluation were based on two hypotheses about the effects of the “Speak out!” campaign. The first hypothesis is that the campaign had a greater effect in 1995 than in 1993, since it was gradually intensified during this period. The second hypothesis was that the campaign had a greater effect on car occupants than on other road users (pedestrians, cyclists, riders of mopeds and motorcycles), and a greater effect on car passengers than on car drivers.

The results of the two before-and-after studies (points A and B above) were practically identical. The results of the before-and-after studies show a very distinct pattern that supports the hypotheses about the effects of the “Speak out!” campaign. However, not all results of these studies were statistically significant at the 10%

level. In view of the clearly systematic pattern in the results, it is nevertheless concluded that the before-and-after studies indicate that the "Speak out!" campaign has contributed to reducing the number of killed or injured teenagers in road accidents in Sogn og Fjordane, in particular the number of killed or injured car passengers.

The multivariate analysis confirmed the results of the before-and-after studies. A total of ten models were tested. The results obtained were very similar across these model specifications. One of the model was chosen as the best model, because it best fitted the data, that is best accounted for the variation found in the data set. Based on this model, Figure S.1 shows the percentage change in the number of injured teenagers in Sogn og Fjordane attributed to the "Speak out!" campaign.

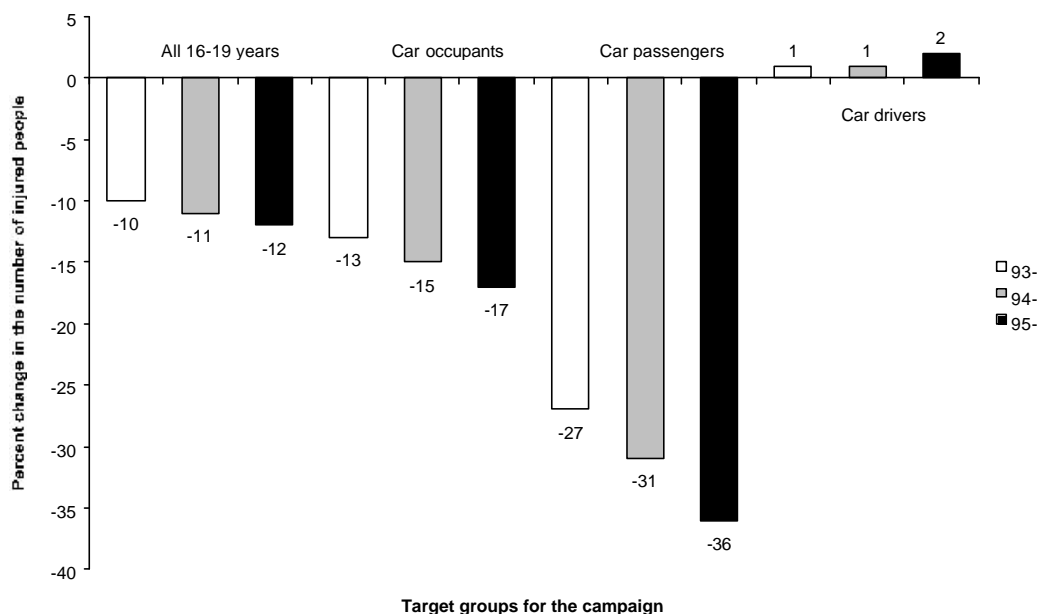


Figure S.1: Estimated effects of the "Speak out!" campaign on the number of killed or injured teenagers (16-19) in Sogn og Fjordane, in the periods starting in 1993, 1994 or 1995. Percent change in the number of injured people.

There was a reduction of about 10% in the total number of killed or injured teenagers, 16-19 years. The number of killed or injured car occupants in this age group was reduced by about 15%, and the number of killed or injured car passengers was reduced by about 30%.

It was only for car passengers that the changes in the number of killed or injured persons was statistically significant at the 10% level. However, the results display a very consistent pattern, supporting the hypotheses concerning the effects of the "Speak out!" campaign. It is therefore concluded that this campaign has contributed to reducing the number of teenagers injured in road accidents in Sogn og Fjordane during the years it has been carried out.

A cost-benefit analysis of the campaign was made. It was estimated that during the years from 1993 to 1998, the campaign has prevented about 30 deaths or injuries among teenagers in the 16-19 age group, or about 5 per year. This safety benefit was valued to about 33.6 million NOK, applying current Norwegian economic valuations of traffic injuries (1 NOK = about 0.14 US Dollars). The costs of the

campaign amount to about 2 million NOK, according the Public Roads Administration. Benefits greatly exceed costs.