

## Safety Corner

### What is the Risk Compensation Theory?

The Risk Compensation Theory suggests that people tend to adjust their behavior in response to perceived change in risk. Their risk perception may be based on changes in environment, added or reduced safety measures, or even rumor. With the introduction of a safety measure, people may take on more risk or become less careful because they think that they are being protected and their increased in risk-taking can be offset by the safety measure. This increase in risk due to behavioral change often outweighs the benefit of the safety measure, leading to a lower net benefit than expected.

An example of risk compensation is the observation that certain motorists of vehicles which have been fitted with anti-lock brakes would drive faster when approaching a corner or closer to the vehicle in front. These motorists may drive more carefully if their vehicles do not have anti-lock brakes. The introduction of anti-lock brakes therefore has failed to deliver the expected reduction in fatality rate due to drivers' behavioural adjustment.

While bicycle helmets may help prevent minor head injuries, many countries have seen no noticeable improvement in fatality trends for cyclists with the introduction of laws mandating the wearing of helmet by cyclists. The risk compensation theory suggests that some cyclists may go faster and take riskier moves when wearing helmet, which cancels out the expected benefits of wearing a helmet.

Safety measures change our environment, and people may change their behavior in response to them. Thus, an appropriate level of promotion and education must be in place to address those who may take on more risk upon the introduction of a safety initiative, in order to realise the full potential of the expected benefit.

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