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Ladies and Gentlemen of the Transportation Committee.

My name is Ranald Mackenzie. I am a physician and I am here to persuade you to repeal this state's motorcycle helmet law.

Let me first say that while there are situations where helmets contribute to injury and death I shall not argue with those who claim that overall a helmet tends to prevent head injury and in other cases reduces the severity of head injury. One would therefore expect to find a substantially lower death rate among motorcyclists in those states which retain the helmet law such as PA, NY, Michigan, Massachusetts, Virginia etc. a total of 19 states plus DC compared with the other 31 states which have repealed or modified the law pertaining to the wearing of helmets by motorcyclists.

Unfortunately that is not the case.

I have compared the figures in the 2 groups. During the 9-year period from Jan. 1, 1977 to Dec. 31, 1985 (we don't yet have the figures for 1986) there have been 3 per cent more fatalities in the 19 helmet states than in the 31 repeal states. The difference is not great but it cannot be disregarded, especially when we were all led to believe that wearing a helmet was far and away the most important thing a motorcyclist could do to preserve his life.

Right now some of you may think this must be a raving lunatic the crazies from ABATE have dredged up and brought from New York to utter such nonsense.

I have been a physician for 37 years. I am board certified in Urology, am a Fellow of the American College of Surgeons, am Director of Urology in Long Beach Hospital, have 2 higher medical degrees from my medical school, the University of St. Andrews. I was married 30 years ago and still have the same wife and we have 3 children, one of whom rides a motorcycle. I myself have 3 high powered motorcycles. I use one almost every day. I began motorcycling 40 years ago.

Ten years ago I founded a national organization, the Motorcycling Doctors Association and was its President for the first 2 years. Reluctantly and

inadvertently I gradually became an authority on the question of motorcycle helmets, injuries and fatalities. So far this year I have testified in Massachusetts, California and Texas and have declined invitations to speak in several other states, since I cannot spare more time from my solo practice.

Your next question is what is the source of his figures? They are provided each year by the D.O.T.s of all 50 states and DC and are published by the Motorcycle Safety Foundation. They include motorcycle registrations, accidents and fatalities.

For the 9-year period studied there are 46.3 million registrations, nearly 1½ million accidents and over 40,000 fatalities. This is the largest study ever made on the significance of helmets. Now I grant you there are many variables and certainly no uniformity in methods of reporting but all such considerations tend to be neutralized when every state and every year are included over a long period of time.

For example urbanization increases accidents. So does density of population. DC has far and away the highest number of accidents in relation to registrations. Length of riding season increases accidents. That is why Florida, Texas and California have lots of accidents. And finally wide open spaces make for wide open throttles and there accidents though less frequent are more often fatal. I have given the subject a great deal of thought and study for many years and I do not believe there are any significant geographical, demographic or climatic differences between the 19 helmet states and the 31 repeal states. I have data on urbanization, population density, registrations, accidents, and fatalities for 50 states going back to 1961.

Your next question is why are there more motorcyclists killed in the helmet states? Very simple. More accidents. In fact 16 per cent more accidents. There are roughly 35,000 accidents reported in the helmet states per 1 million registrations as against 30,000 in the repeal states, and the D.O.T. said accidents are underreported in helmet states.

Now you say, why are there more accidents? In the past the answer to this question has been diminished hearing, reduced field of vision, heat and fatigue associated with helmet wearing. Certainly a helmet has no positive value in

these areas but there are more important reasons for helmets to cause accidents: A helmet allows a rider to maintain a higher average rate of travel. Who travels long distances at high speed in a convertible? But most important a helmet because of its vaunted reputation as a safety device encourages the inexperienced to take risks beyond what he would without a helmet. In short it conveys a feeling of invulnerability.

I am the recipient of data and studies, published and unpublished from all parts of the world because of my involvement in this issue. Only last week a British organization sent me a report of a study conducted by the Dept. of Psychology, Trinity College, Dublin. It seems that in recent years the Irish government has been pushing the voluntary use of headlights by motorcyclists during daylight hours. In the study 36 per cent of motorcyclists rode with the headlight on during the day. However it was found that 62 per cent of accident victims were derived from this group. The conclusion was that having been led to believe use of the headlight contributed to their safety they were correspondingly less cautious.

This is what tends to happen when a motorcyclist wears a helmet, particularly if he is inexperienced and has been misled into believing that a helmet confers more protection against injury than it actually does. A helmet despite being of value in reducing injury cannot compensate for the much larger number of accidents which ensue from its use, the net result being a far greater number of injuries and a greater number of fatalities.

Pennsylvania should experience fewer accidents, injuries and fatalities among motorcyclists by repealing the mandatory helmet law.

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Incidence of Accidents and Fatalities in Motorcycling

For the 9 years ending December 31, 1985.

	<u>Registrations</u>	<u>Accidents</u>	<u>Fatalities</u>
Helmet states	17,312,414	612,899	15,338
Repeal states	<u>28,992,906</u>	<u>880,184</u>	<u>24,936</u>
Totals:	46,305,320	1,493,083	40,274

Accidents and Fatalities per Million Registrations.

	<u>Accidents</u>	<u>Fatalities</u>
Helmet states	35,402 (116.6%)	886 (103.0%)
Repeal states	30,359 (100%)	860 (100%)

Use of helmets is accompanied by a 16.6 per cent greater incidence of accidents and 3 per cent more fatalities.

Data derived from the annual reports of the Motorcycle Safety Foundation which in turn obtains figures from the Departments of Transportation of each state.

A. Ranald Mackenzie M.D.
Founder & Past President, Motorcycling Doctors Association