University of Waterloo STAT 231 – W. H. Cherry

The article reprinted below is of interest because it illustrates how *limited* blocking and replicating and the *absence* of random assigning substantially increase the limitations on the Answer obtained from an experimental Plan.

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Success of Norway's cigarette ad ban disputed

BY GRAHAM FRASER

The Globe and Mail

OTTAWA

Did the Norwegian ban on tobacco advertising in 1975 reduce smoking, or didn't it?

The Canadian Cancer Society had Dr. Kjell Bjartveit, chairman of the Norwegian Government's National Council on Smoking and Health, tell a news conference yesterday that the ban has stopped an "alarming increase" in smoking in Norway since 1950.

Dr. Bjartveit argued that the advertisers and cigarette manufacturers had distorted Norwegian statistics by not showing the dramatic increases from 1950 to 1965, when a ban was first endorsed by the Norwegian Parliament, thus suggesting that the adversing ban didn't work.

However, Jean Boddewyn, a professor of marketing at the City University of New York, appeared before the parliamentary committee on Bill C-51 on behalf of the Canadian Tobacco Manufacturers Council to argue that advertising bans do not work. Norway is not a model, and Dr. Bjartveit's figures were misleading.

"I am not so sure that Norway is such a model country," Mr. Boddewyn said. "After all, this is a country that has also banned private radio and television, that has also banned the advertising of alcoholic beverages ... and that has also banned the use of premiums in advertising. In other words, a rather intolerant and uncompromising country, I would say."

Dr. Bjartveit said that tobacco sales had increased from 1,450 grams per capita in 1950-51 to 2,000 grams per capita in 1969.

Fluctuations then took place between 1969, when the Norwegian Parliament endorsed a ban and 1975, when the ban was enforced, and consumption reached 2,100 grams per capita.

Then, with enforcement of the act and three price increases, the consumption fluctuated and dropped to a little over 1,800 grams per

capita in 1982 before creeping up slightly to just under 1,900 grams per capita in 1986.

"We feel the data we have presented clearly show there is an effect on children's smoking," Dr. Bjartveit said, presenting charts showing that smoking by girls and boys at the ages of 13, 14 and 15 had risen to a peak in 1975, when the ban was introduced, and then had dropped off.

Mr. Boddewyn said that the MPs should question Dr. Bjartveit's premises, facts and conclusions.

"One of his charts implies that, without the ban, Norwegian tobacco consumption would have kept increasing for ever," he told the committee. "This is nonsense since the consumption of all mature products levels off or declines sooner or later, and such a levelling off or decline of tobacco consumption has already happened in countries without a ban – like Canada."

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