Alcohol Consumption and Breast Caner – A Retrospective Study

A 1982-1986 study of women in Toronto, Ontario, assessed the added risk of breast cancer due to alcohol consumption. A sample of confirmed breast cancer patients at Princess Margaret Hospital who consented to participate in the study was obtained, as was sample of cancer-free women from the same neighborhoods who were close in age to the cases. The following tables show data only for women in two categories at the end of the alcohol consumption scale: those who drank less than one alcoholic beverage per month (3 years before the interview), and those that drank at least one alcoholic beverage per day. The women are further categorized by their body mass, a possible confounding factor. What evidence to these data offer that the risk of breast cancer is greater for heavy drinkers ($\geq$ 1 drink/day) than for light drinkers (< 1 drink/month)? Perform a statistical analysis and write a conclusion as if you are a statistical consultant reporting to a client on this study. Your report should include your statistical analysis and also few paragraphs that explain your results in common language that can be understood by non-statisticians.

	< 21 kg/m^2		21-25 kg/m^2		> 25 kg/m^2	
	Cases	Controls	Cases	Controls	Cases	Controls
At least one drink per day	42	51	63	147	31	45
Less than one drink per month	27	61	89	163	57	110