

2x2 Contingency Tables

Example 1: A randomized clinical trial (RCT) was conducted to evaluate the use of infra-red stimulation (IRS) in reducing pain caused by osteoarthritis. 26 patients were randomized, 13 to be treated by IRS and 13 to receive "mock" transcutaneous electrical stimulation (i.e. a placebo). One patient in the IRS group dropped out. In the IRS group, 9 of the 12 patients reported an improvement in pain, compared with 4 out of 13 in the control group.

Example 2: A study was conducted to examine factors related to juvenile delinquency in teenage boys. A group of delinquent boys and a control group similarly aged non-delinquents were given vision tests. In the delinquent group 9 boys failed the vision test, only one wore prescription eyeglasses. Of the 7 boys in the control group who failed the test, 5 of the boys wore prescription glasses.

Example 3: In a landmark study published in 1950 by Richard Doll and Austin Bradford Hill in the U.K. 60 female lung cancer patients were compared with 60 similarly aged healthy patients. 41 of the cancer patients were established smokers compared to 28 in the control group.

Example 4: To examine the relation between Marijuana consumption and sleep disturbances, 32 male Marijuana smokers were recruited. Each Marijuana smoker provided names of similarly aged friends who did not smoke Marijuana, and from that pool of names, one control subject was recruited for each smoker. All subjects were evaluated for sleep disturbances. The results are given below in this table, which describes the outcomes in terms of the 32 pairs.

		Marijuana smoker	
		+	-
Control	+	4	9
	-	3	1