

material in www.epi.mcgill.ca/hanley/c626/

username: mantel ; password: co-author's name (8 letters, h*****1) ; both lowercase

- 1 Comment on the validity of the conclusions regarding scouting injuries. Hint: think person-time!
- 2 *[Optional, but pp 20-30 helpful for q's 3-6] Read the draft of the Notes on Poisson Distribution handed out in class and indicate -- on writing on the paper -- items that are not clear and that could be better explained. Hand back the marked up notes (a new set of notes, based on your suggestions / comments / corrections, will be posted on the 626 www page).*
- 3 Calculate a 95% CI for the SIR and perform a test (at $\alpha = 0.05$ 2-sided) of SIR=1 for the Alberta Sour Gas Study [restrict attention to the 33 vs 36.3 [Index Area1970 Cohort *Females vs (1) Southern Alberta excl. Calgary, Lethbridge, & Medicine Hat (RP1)*].

Carry out the same inference procedures, but imagine the concerned area or cohort was much smaller .. so that 3 cases were observed where 0.45 were expected.

- 4 *[Optional, but relevant for question on ralox] Calculate 95% CI's and perform tests (at $\alpha = 0.05$ 2-sided) for the rate ratio and rate difference based on the Rothman & Boice data given on page 28 of Poisson notes.*
- 5 Show how you think the authors got the various numbers in the following passage from the study on DAYLIGHT SAVINGS TIME AND TRAFFIC ACCIDENTS

The loss of one hour's sleep associated with the spring shift to daylight savings time increased the risk of accidents. The Monday immediately after the shift showed a relative risk of 1.086 (95 percent confidence interval, 1.029 to 1.145, $\chi^2 = 9.01$, 1 df, $P < 0.01$).

Comment on whether the Poisson distribution is actually appropriate in this accidents example. Restrict attention to the Spring. Hint: imagine you had the individual yearly Monday data not just for 1991 and 1992 but for say 1980 to 1999. Do you think the year to year variation in the 20 "pre-time-change" Mondays would be Poisson?

Daylight savings time and traffic accidents [letter] [see comments].

Comment in: N Engl J Med 1996 Aug 1;335(5):355-6; discussion 356-7,

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Comment in: N Engl J Med 1998 Oct 15;339(16):1167-8

Source New England Journal of Medicine. 334(14):924, 1996 Apr 4.

- 6 *[Optional] Accidents involving female vs male airline pilots*
- 7 Questions 1-6 based on Abstract on Raloxifene & Risk of Breast Cancer in Postmenopausal Women [part of final exam last year]