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## Low-Level Radiation

It is hard to see what good taking another look at low-level radiation risk would do (ScienceScope, 27 Sept., p. 1787). Five previous reports have created nothing but controversy (1). In each report, one faction identified 0.1 Gray as the lower limit of acute and cancerous effects (1), only 100 times below the lethal dose and unchanged in 30 years of intense research. And each time a second faction insisted on exaggerating scientific uncertainty and creating artificial risks in order to "save lives." Hard numbers were usually buried under an inch of paper, but the frightening speculation appeared on page 1.

Not mentioned in those five reports is the important fact that radon has been safely regulated by a reasonable standard predating the Environmental Protection Agency (EPA) standard. That standard, still in use, corresponds to a cumulative dose only five times lower than the 0.1-Gray threshold (2). Yet surveys with exceptional statistical power show that this standard is safe (3).

## References and Notes

1. *BEIR V: Health Effects of Exposure to Low Levels of Ionizing Radiation* (National Academy Press, Washington, DC, 1990).
2. Calculated from the 4 pico-Curies per liter action level for radon ["Technical support document for the 1992 Citizen's Guide to Radon" (EPA 400-R-92-011, Environmental Protection Agency, Washington, DC, 1992)]. The lowest carcinogenic dose in miners with an odds ratio greater than 3 is 226 working level months (WLM) [J. Sevc, *Health Phys.* **54**, 27 (1988)]. Conversion factor: 10 pico-Curies per liter per year = 2 WLM.
3. B. L. Cohen, *Health Phys.* **68**, 157 (1995).

## Women Alcoholics at Bellevue, 1918–1919

Data published in *Science's* pages in a 1936 article about historical trends in alcoholism admissions at Bellevue Hospital in New York City are probably mistaken. The questionable data occur in a paper authored by alcoholism, vitamin, and cholesterol researcher Norman Jolliffe (1901–1961) ["The alcoholic admissions to Bellevue Hospital" **83**, 306 (1936)].

Jolliffe's paper reported a generally downward trend in the proportion of female (to male) Bellevue alcoholism admissions from 1902 to 1933—the latter, national prohibition's final year. The trend was punctuated however by a sudden spike in 1918 and 1919, when the proportion of female admissions virtually doubled to 41.8% and 39.5%, respectively. Jolliffe offered two guesses for the occurrence. First, it might have been "due in part to an increase of social drinking occasioned by entertaining soldiers embarking for and returning from overseas." Second, the unhappiness caused by the war-time absence of men turned more women to drink. Jolliffe cleverly deduced that the absence of men, and not worry about men's safety in combat, explained the rise, incidentally, by noting that female admissions were almost as large in 1919 as in 1918, even though hostilities had ceased by the latter year.

In 1990, I exchanged correspondence with the late Mark Keller, longtime editor of the *Journal of Studies on Alcohol*, who worked as Jolliffe's editorial and research assistant in the 1930s. Keller noted that a mixup had occurred in the collection of data for Jolliffe's Bellevue admissions paper. He explained that both of Jolliffe's hypotheses for the female admissions spike were moot because

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the increase in the proportion of female admissions never actually happened. A change in admissions-recording practices, he explained, was the source of the apparent spike.

The previous [pre-1918] and later [post-1919] statistics were filed by the famous Dr. Menas Sarcos Gregory. During the war he went into Government service. The deputy who substituted for him . . . did something different from Gregory. He filed "all" the alcoholic admissions in the entire Bellevue Hospital, whereas Gregory used to file only the Alcoholic Ward admissions, in the old days, and the Psychiatric Division admissions since it got its new building. This obviously accounted for the seeming increase of female admissions in those two years; for apparently there was a policy of admitting most drunken women to the general medical wards rather than to the 'alcoholic ward' in Psycho. Likely, too, that in the old Alcoholic Ward (pre-1930s) there wasn't much room for women.—This error in the 1936 *Science* paper had never been corrected.

Keller's statement implies that more than the spike was awry in Jolliffe's admissions trend-lines. If the female admissions were underreported in years before and after 1918 and 1919, then both female admissions and, by extension, total admissions trends reported in Jolliffe's paper are likely problematic.

Keller noted that he had intended on more than one occasion to write *Science* about the matter, to illustrate, he said, the "vagaries of hypothesizing," but he apparently never got around to it.

The data offered in Jolliffe's 60-year-old paper retain more than merely archaic interest. Figures relating to alcoholism admissions and alcohol consumption during national prohibition are used and of interest to, for example, both sides in the current national debate over drug decriminalization. (see, for example, E. A. Nadelmann, Letters, 1 Dec. 1989, p. 1104)

I hope and trust that Keller and the good Dr. Jolliffe would have been relieved and pleased to see this little matter finally cleared up!

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#### Corrections and Clarifications

The Random Samples item "Locus for Parkinson's" (15 Nov., p. 1085) incorrectly stated that scientists analyzed blood samples from 400 members of a Parkinson's-prone family. The scientists actually analyzed 28 blood samples from the 400-member family.

In the letter by Peter Bearse (18 Oct., p. 325), the page number given for Floyd E. Bloom's editorial of 2 August should have been "559," not "869."

The ScienceScope item "NIH's harvest of special projects" (11 Oct., p. 167) reported incorrectly that a \$200,000 grant went to the National Biomedical Research Foundation. In fact, the grant went to the National Foundation for Biomedical Research.

In the map accompanying the News & Comment article "India's spreading health crisis draws global arsenic experts" (11 Oct., p. 175), Bangladesh should have been shown as east of West Bengal, not north of Nepal and Bhutan.

#### Letters to the Editor

Letters may be submitted by e-mail (at [science\\_letters@aaas.org](mailto:science_letters@aaas.org)), fax (202-789-4669), or regular mail (*Science*, 1200 New York Avenue, NW, Washington, DC 20005, USA). Letters are not routinely acknowledged. Full addresses, signatures, and daytime phone numbers should be included. Letters should be brief (300 words or less) and may be edited for reasons of clarity or space. They may appear in print and/or on the World Wide Web. Letter writers are not consulted before publication.

# Laser

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ACT	Leu
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