

and the probability of three or more deaths in one such clinic on a given day is only $1 - p_{ij} = 0.00015$. However, the probability of three or more deaths on some day in some clinic during the first week is

$$1 - \prod_{j=1}^7 \prod_{i=1}^{100} p_{ij} = 1 - (0.99985)^{700} = 0.103$$

Thus, the chance of three or more deaths in a single clinic on a single day are remote (about 1 in 10,000). Therefore, each such episode should be care-

fully investigated to rule out avoidable accidents. On the other hand, these calculations show that the probability that some clinic would have three or more deaths on some day during the first week could easily approach 10 percent, even if vaccination has no effect on mortality. If some of the victims saw others collapse, as is suggested in Boffey's article, the chances of having three or more deaths in some clinic are probably enhanced.

Of course the preceding calculations are hypothetical, as the numbers of patients seen at each clinic and corre-

sponding average death rates were not used. The main uncertainty in estimating average death rates is that those who go to clinics for vaccination may be appreciably healthier than the general U.S. population, since very ill patients are unlikely to be vaccinated. However, because the vaccination program enlisted sick and elderly patients, one can only speculate what average death rate is appropriate. The following table gives the probability of three or more deaths in some clinic on some day during the first week assuming $n_{ij} = 1000$ and various numbers of clinics and average death rates, α_{ij} (deaths per 10^5 people per day).

		Clinics (m)		
		50	100	300
α_{ij}	15	.16	.30	.65
	10	.05	.10	.28
	5	.01	.01	.04
	2	.00	.00	.00

Clearly the death rate is a dominant variable. For this reason it seems worthwhile to conduct special studies during several vaccination programs to determine age-specific death rates for those who actually come to clinics for vaccinations. In this way one could obtain more reliable estimates of the expected numbers of deaths and the probability of observing three or more deaths in some clinic, assuming vaccination is entirely safe.

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References

1. *U.S. Life Tables: 1969-71* [Department of Health, Education, and Welfare Publ. No. (HRA) 75-1150, National Center for Health Statistics, Rockville, Md., 1975], vol. 1, No. 1, p. 7.

Alleviating Confusion

In the recent Research News article "Sexual dimorphism and mating systems: How did they evolve?" (28 Jan., p. 382), some work on sexual dimorphism in bats is described. This research is wrongly credited to Philip Meyers at the University of Michigan; his interest in sexual dimorphism is limited to *Homo sapiens*. The person to whom credit belongs is Philip Myers of the University of Michigan. We hope this letter alleviates confusion.

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