about asbestos works or in households of asbestos workers, but these are presumably heavier exposures than we now observe in the general environment, and the effect of general asbestos air pollution remains to be defined (SELIKOFF *et al.*, 1972; SELIKOFF *et al.*, 1968).

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REFERENCES

LANGER A. M., SELIKOFF I. J. and SASTRE A. (1971) Chrysotile asbestos in the lungs of persons in New York City. *Arch. Environ. Hlth* **22**, 348–361.

LANGER A. M., RUBIN I. B. and SELIKOFF I. J. (1972) Chemical characterization of asbestos body cores by electron microprobe analysis. *J. Histochem. Cytochem.* **20**, 723–734.

NICHOLSON W. J., ROHL A. N. and FERRAND E. F. (1971) Asbestos air pollution in New York City. In *Proc. Second International Clean Air Congress* (Edited by ENGLUND H. M. and BERRY W. T.) pp. 136–139. Academic Press, New York.

POOLEY F. D., OLDHAM P. D., UM C. and WAGNER J. C. (1970) The detection of asbestos in tissues. In *Pneumoconiosis: Proc. International Conf.* Johannesburg, 1969 (Edited by SHAPIRO H. A.) pp. 108–116. Oxford University Press, Oxford.

SELIKOFF I. J., NICHOLSON W. J. and LANGER A. M. (1972) Asbestos air pollution. *Arch. Environ. Hlth* **25**, 1–13.

SELIKOFF I. J. and HAMMOND E. C. (1968) Community effects of non-occupational environmental asbestos exposure. *Am. J. Pub. Hlth* **58**, 1658–1666.

AUTHORS' REPLY

QUANTITATIVE results for the concentration of asbestos in New York City are valuable and a reproducibility indicated by a difference of only two or three times is impressive. Values for the 49 other cities will be of great interest.

The difference shown by these figures between concentrations of asbestos fibres near to a point at which asbestos was being sprayed and the concentrations found in the general atmosphere was little more than the difference between duplicate samples estimated in the laboratory, except when the sampling was carried out immediately downwind from source. This proves that there is widespread and rapid dissipation of the dust from the point of origin.

The neighbourhood hazard has again been emphasized in a report given by W. Bouché at the meeting of the *International Societies for Hygiene, Preventive and Social Medicine*, 1972. The report showed that, of the 196 patients with mesothelioma reported in the city of Hamburg, 55 had no known industrial exposure to asbestos but had lived in the neighbourhood of asbestos factories. This indicates the importance of independent surveys of the type carried out by Selikoff and his collaborators.

The object of our investigation was only to determine whether asbestos fibres are present in the atmosphere of towns where there is no asbestos industry. The result was positive in every case.

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DISCUSSION

ASBESTOS FIBRES IN THE AIR OF TOWNS*

THE AUTHORS stress the frequency with which asbestos fibres are found in human lungs. They present

* P. F. HOLT and D. K. YOUNG (1973) *Atmospheric Environment* **7**, 481–483.