Ireland, and Russia. The high rate in Russian women might have been genetically determined, since many of the migrants from this country were Jewish, and the findings of other workers have indicated that Jewish women may be relatively susceptible to the disease.[5 6] Haenszel suggested that a high consumption of alcohol may explain the raised incidence of cancer of the oesophagus in migrants from Ireland. Retrospective studies on cases and controls support this theory.[7] Moreover, the distribution by site of the cancers prevalent among the Irish (notably buccal cavity, oesophagus, intestines, and rectum) matches that for workers in the alcoholic-beverages trades.[8] The excessive risk of oesophageal cancer in migrants from other countries could not be explained. In particular it was difficult to see why migrant males, but not females, should have experienced higher risks of developing oesophageal cancer than those remaining in their respective home countries.

All migrant groups in Haenszel's study showed an excessive mortality from cancer of the stomach. Previous investigators have reached the same conclusion.[9] In general, the higher rates in migrant groups seemed to be matched by similarly high rates in the respective countries of origin.

Previously, D. F. Eastcott[10] and G. Dean[11 12] reported that male migrants from the United Kingdom to New Zealand and South Africa, respectively, experienced a higher expectation of developing lung cancer than their native-born white peers, despite a similar average exposure to tobacco smoke. The lung-cancer rates of the migrants were, in fact, intermediate between those of the adopted country and those of the country of origin. The rates for those migrating after the age of 30 were higher than for those migrating before that age. Haenszel[4] also found excessive mortality from lung cancer among migrants from the United Kingdom to the United States. These findings suggested that persons born in the United Kingdom are exposed to an environmental carcinogen which is absent from, or less prevalent in, the country to which they emigrate and that they carry with them the effects of this exposure. Prospective studies with detailed records of smoking habits are required before this theory can be finally accepted.

At the conclusion of his 1961 paper Haenszel[4] made several suggestions for further work, including collaborative studies with standardized methods between investigators in the U.S.A. and in the countries of origin of migrants. He and Staszewski[3] have now reported such a study of Polish migrants to the United States. They confirmed, first, that, while the age-specific mortality among both sexes for cancer of the oesophagus is similar in native U.S. whites and native Poles, the rate in migrant Polish males, but not females, is substantially higher; and, secondly, that the mortality rates for cancer of the stomach in migrants of both sexes were similar to those in Poland and higher than those in the United States. It is possible that the persistence of dietary customs and habits among migrants causes the excess of stomach cancer, but the excess of cancer of the oesophagus in migrants remains unexplained.

Mortality rates for cancer of the colon and rectum are higher in the United States than in Poland, but the migrant does not benefit from this: his expectation of cancer of these sites conforms more closely with those in the host country. Within the United States mortality from cancer of the colon and rectum varies in different regions, and more migrant Poles settle in the north-east region, where the rates are unusually high. As in the case of the oesophagus, mortality from cancer of the larynx and from cancer of the lung is higher in male migrants than in U.S.-born white males or in stay-at-home Polish men.

This report of Staszewski and Haenszel[3] reflects a new and important development in which epidemiology, as an investigative tool, crosses frontiers and stimulates the standardization of methods of diagnosis and the collection and storage of data. It may be a vital step in the attempt to distinguish genetic from environmental factors in the causation of disease. The authors cannot, and do not, claim that the data at present available to them from Poland are strictly comparable with those from the U.S.A., but the fact that they have undertaken this study jointly will itself help to rectify this difficulty in the future. In East Africa M. S. R. Hutt and D. Burkitt[13] are exploiting a somewhat similar geographical approach to the epidemiology of cancer.

The facts as known at present, if taken at their face value, suggest that the migrant fares rather badly in respect of his risk of developing cancer, especially cancer of the oesophagus and larynx. Is he constitutionally a different type of person from the non-migrant? Such a difference could be reflected either as an unusual liability to develop cancer or as a tendency to expose himself excessively to environmental carcinogens. Here it is essential that exposure to tobacco and alcohol be carefully taken into account in comparisons between migrants and non-migrants. Provided this condition is fulfilled, and provided standard methods are used, there is good reason to hope that future studies on migrants will detect new and important environmental causes of cancer.

[1] Steiner, P. E., *Cancer: Race and Geography*, 1954. Baltimore.
[2] *Brit. med. J.*, 1965, **1**, 1.
[3] Staszewski, J., and Haenszel, W., *J. nat. Cancer Inst.*, 1965, **35**, 291.
[4] Haenszel, W., ibid., 1961, **26**, 37.
[5] MacMahon, B., *Acta Un. int. Cancr.*, 1960, **16**, 1716.
[6] Segi, M., *Age-adjusted Death Rates for Malignant Neoplasms, for Selected Sites, by Sex in 24 Countries, in 1952–53, 1954–55, and 1956–57*, 1959. Department of Public Health, Tokoku University School of Medicine, Sendai, Japan.
[7] Wynder, E. L., Bross, I. J., and Feldman, R. M., *Cancer (Philad.)*, 1957, **10**, 1300.
[8] Registrar-General's Decennial Supplement, England and Wales, 1951, Pt. 2. Occupational Mortality, 1958. London.
[9] Lombard, H. L., and Doering, C. R., *J. Prev. Med.*, 1929, **3**, 343.
[10] Eastcott, D. F., *Lancet*, 1956, **1**, 37.
[11] Dean, G., *Brit. med. J.*, 1959, **2**, 852.
[12] —— ibid., 1961, **2**, 1599.
[13] Hutt, M. S. R., and Burkitt, D., ibid., 1965, **2**, 719.

New N.H.S. Bill

In the negotiations[1] on the family doctors' Charter the Minister of Health promised to introduce legislation for an independent finance corporation to lend doctors money for providing practice premises. Last week he introduced a Bill[2] in the House of Commons with this as its first purpose. The establishment of such a corporation was one of the demands in the Charter on which general practitioners put much emphasis, and it was one of the matters on which both the Conference of Local Medical Committees and the Representative Body[3] insisted that the Minister should give a positive assurance of intent. It is unlikely that the debate on the second reading of the Bill, which took place in the House of Commons this week after we had gone to press, will have shown any major differences of party political opinion on what is proposed. The Bill should become an Act by the time the new contract for general practitioners has been priced by the Review Body.

The General Practice Finance Corporation, as it would be called, would operate in England and Wales and Scotland. It would consist of up to eight members (including a chair-

man and deputy chairman) to be appointed by the Health Ministers after consultation "with such organizations as appear to them to be representative of the medical profession." The Corporation would appoint its own staff, who would be paid by the Exchequer. It would operate on a commercial basis (it would charge interest on its loans) and would be expected over a period to break even financially. The Corporation would have power to borrow up to £10 million to begin with, but this sum could be increased to £25 million by Ministerial order. Its main function would be to make loans to general practitioners in the N.H.S. to enable them (*a*) to provide, or acquire a share in, premises used or to be used, in whole or in part, for the provision of such [general medical] services; (*b*) to alter, enlarge, improve, or repair such premises; (*c*) to acquire any land required for the erection of or in connexion with the use of such premises; (*d*) to repay any loan raised by them for any such purpose. The Corporation would also have power to purchase sites to let to doctors on building leases. It may also in due course, if authorized by the Ministers, finance the purchase of equipment or furniture.

The purposes for which the Corporation would be able to make loans are almost identical with those suggested in the Charter. All doctors would be eligible for assistance, which is not the case with the existing Group Practice Loans Scheme, which excludes doctors not in group practice. It seems likely that that scheme will now be redundant. Taken in conjunction with the provisions of the improvement grants scheme,[4] under which a grant of one-third of the cost of improvements to practice premises may be received, the new proposals should make it possible for any doctor to borrow the capital needed to equip himself to practise modern medicine as he would wish. A loan will appeal to those who wish to have the independence that goes with ownership. It should be noted, however, that the Corporation would have to comply with any directions "given from time to time" by the Ministers, and that their approval "of any premises or other land or works" might be required. These stipulations may be no more than merely prudent in launching an experimental scheme with Government backing. Nevertheless, the activities of the Corporation could greatly influence the future of general practice. The role of the central advisory committee (on which the profession would be represented) which the Minister agreed[1] should be appointed to advise on policy and questions of priority could be onerous.

The second purpose of the Bill is to enable general practitioners in the N.H.S. to be paid by salary. This involves repealing section 10 of the National Health Service (Amendment) Act, 1949. This section added, at the specific request of the medical profession, a proviso to subsection (1) of section 33 of the Act of 1946 (and to subsection (1) of section 34 of the Act of 1947 which refers to Scotland) prohibiting a full-time salaried general-practitioner service. It reads: "Provided that the remuneration to be paid under such arrangements to a practitioner who provides general medical services shall not, except in special circumstances, consist wholly or mainly of a fixed salary which has no reference to the number of patients for whom he has undertaken to provide such services." The "special circumstances" referred to are covered by section 43 of the 1946 Act (section 44 of the 1947 Act) which enables the Minister to make such arrangements as appear to him necessary, irrespective of the regulations under the Act, to provide general-practitioner services when he is satisfied that the general practitioners in any area "are not such as to secure the adequate provision of the services in question."

The Minister of Health has been advised that the special circumstances mentioned in section 10 of the 1949 Amending Act, and provided for in section 43 of the 1946 Act, do not apply to the circumstances in which it has been agreed,[5] at the profession's request, that groups of doctors should be given the choice of payment by salary. Therefore repeal of section 10 of the Amending Act of 1949 is necessary.

The loss of this statutory guarantee that salaried service could not become the rule in general practice will seem to many an unfortunate breach in the profession's cherished defences against a method of payment which has always been considered by the majority of doctors to be unsuitable for general practitioners. However, the Bill provides safeguards. Section 10 of the new Bill states that a general practitioner shall not be paid wholly or mainly by fixed salary except where: "(*a*) the arrangements are made by virtue of section 43 of the . . . Act of 1946 or section 44 of the Act of 1947; or (*b*) the services are provided in such circumstances as may be prescribed *and the practitioner consents*" (our italics). Section 10(2) states that before making regulations prescribing any circumstances for the purposes of this section the Ministers "shall consult with . . . the medical profession." These provisos are in harmony with the Minister of Health's statement in his letter to the Secretary of the B.M.A. (printed at p. 31 of the *Supplement*) that he has no wish to introduce a salaried service against the wishes of the profession. It remains to be seen how many doctors will wish to be paid by salary. That will be the measure of the impact of this part of the Bill on medical practice.

[1] *Brit. med. J. Suppl.*, 1965, **1**, 238.
[2] National Health Service Bill, 1966. H.M.S.O., London. Price 1s. 6d. net.
[3] *Brit. med. J. Suppl.*, 1966, **1**, 113.
[4] Ibid., 1965, **2**, 218.
[5] Ibid., 1965, **2**, 153.

Hospital Staphylococcal Infection

Much has been written in recent years about cross-infection in hospitals, particularly with staphylococci. Before deciding on the necessity of some of the suggested remedies it is advisable to assess the magnitude of the problem, and this has been attempted by a working party of the Public Health Laboratory Service, whose report appears at page 313 of the *B.M.J.* this week. This was a collaborative study at 15 centres, of which eight provided most of the data obtained by a series of exactly defined bacteriological tests applied at necropsy, staphylococci being looked for in 10 different situations. The tests were applied at 470 necropsies, which constituted about 10% of those carried out at the centres taking part. It was suggested that two conducted on an agreed day of the week should be chosen, that young patients should be included wherever possible, and all dying between the ages of 1 month and 15 years. There was a control series of 125 patients dying outside hospital, and they were supposed to include equal numbers of traumatic and non-traumatic deaths. Presumably these were sudden deaths (59 were cardiac). Only 14 were victims of "accidents," and the series is not as comparable as would have been one of patients dying at home of the mainly chronic diseases that affected patients in the hospital series, but necropsies on an adequate number of such cases would have been unobtainable.