and general measures to improve the patient's nutrition, including vitamin supplements. The range of antibiotics continues to expand, and further advance may be expected. Polymethonium compounds, by their autonomic-ganglion blocking action, may yet prove rescuers of a bowel tossed in the storm of emotional stimuli acting through the parasympathetic system. The conclusion that medical treatment has failed is therefore not one to be lightly reached, though during such treatment careful watch must be kept for such rapid deterioration as shown radiologically in the second and third cases in Mr. Gabriel's series. The discomforts of ileostomy are not trivial, and, once performed, ileostomy is likely to be permanent, though exceptions have been reported,[3 4] particularly in cases where operation is undertaken early in the course of the disease. It is argued that early ileostomy may spare the colon from irreparable damage and allow the morbid process to settle down, with the result that normal function of the colon may be possible later. It may be that the outcome would be equally good in such early cases if medical treatment were begun forthwith. Without a controlled series in which alternate patients were treated medically and surgically no definite conclusions can be drawn. Nevertheless it is fairly generally agreed that the emergency or "last-ditch" ileostomy carries a high mortality[5] and is often a confession of tardiness as well as failure. Clearly then the predominant factor in determining the success or otherwise of surgical treatment is the careful selection of cases. Gabriel makes out a strong case in support of his contention that when a decision to operate is made inguinal ileostomy and total colectomy is the procedure of choice either as a one-stage or two-stage procedure.

In the management of ulcerative colitis early consultation between physician and surgeon, even at the stage before surgery is contemplated, will enable each to have a better understanding of the scope and limitation of the other's methods. A word of warning has been sounded by Brooke and Cooke,[6] who describe right-sided colitis in which involvement of the terminal ileum by the ulcerative process may lead to surgical failure. To avoid such disaster these authors advise that the preliminary examination should include a "progress meal" with non-flocculating colloidal material. Failure of fat absorption as shown by the fat balance test, macrocytic anaemia, serum protein disturbance, or glossitis provide further evidence of ileal dysfunction. The discovery of an ileal lesion is a contraindication to any operation designed to divert the faecal stream from the colon, since the disease may develop above the ileostomy.

SEPTIC ABORTION

The immediate complications of abortion may endanger life, and the remote effects may convert a woman into a "pelvic invalid" or render her subsequently sterile. These serious consequences are particularly associated with septic abortion, the treatment of which is discussed by Mr. C. W. F. Burnett in this issue of the *Journal*. It is to be hoped that he will publish a long-term study of his cases at a later date. His present paper is concerned with the management and immediate outcome of 267 consecutive cases of septic abortion seen at one hospital during the five years 1946 to 1950. The diagnosis in each case was made on clinical grounds, for without clinical signs of infection the recovery of pathogenic organisms from cervical swabs is not in itself diagnostic. Similarly, when infection is present, the predominant organism in the culture is not necessarily the infecting agent. This is particularly so in the case of *Cl. welchii*, which can be obtained in pure or mixed culture in about 20% of infections after abortion,[1] so that Mr. Burnett was fortunate to find this organism in only 4 of his 267 cases, a finding which helps to explain why apparently none of his cases was complicated by lower nephron nephrosis.

While some may differ on points of detail, the general lines of treatment which Mr. Burnett advocates in septic abortion will probably meet with wide approval, and his point that the best results are obtained if the infection can be quickly controlled before operation is a sound one. Davis[2] was not impressed with the sulphonamide drugs in combating infection in abortion, but the various antibiotic drugs are usually effective. Yet, if there is no response to whichever of these is given empirically at the outset, the evacuation of an incomplete septic abortion should not be delayed beyond 36 hours unless there is evidence that the infection is widespread. Evacuation of the uterus in these cases should be done by a skilled gynaecologist, and for this reason, and also because transfusions, blood cultures, and bacterial sensitivity tests are often required, patients with septic abortion should always be admitted to hospital, although preliminary attention at home by an obstetric flying-squad is sometimes life-saving. The hospitals for their part must see to it that enough beds are set aside for cases of abortion.

Although criminal abortion may not set up an infection, most, though not all, cases of septic abortion follow criminal interference. If, as has been reported, fewer cases of infected abortion are seen now in the United States because abortionists give an antibiotic drug before performing abortion,[3] the same may not be true in this country, where, according to Davis,[2] most criminal abortions are self-induced. Certain medico-legal points connected with criminal abortion were recently mentioned by Dr. Bentley Purchase[4] in a letter to this *Journal*, and in this issue these as well as the medico-legal aspect of therapeutic abortion are discussed by Dr. Donald Teare

1 Ramsay, A. M., *J. Obstet. Gynaec. Brit. Emp.*, 1949, **56**, 247
2 *British Medical Journal*, 1950, **2**, 123.
3 Greenhill, J. P., *Year Book of Obstetrics and Gynaecology*, 1950, Chicago, p. 71.
4 *British Medical Journal*, 1952, **1**, 761.

in a Refresher Course article. When the practitioner is consulted after an attempted abortion he has to consider both professional secrecy and public duty, and according to Dr. Teare there is rarely any difficulty in satisfying both. The first duty of the doctor is to the health and life of his patient. If he believes that the abortion was self-induced, then information gained in the professional relationship should not be disclosed, except on the rare occasion when it may be necessary in order to safeguard innocent persons from criminal allegations. When the doctor learns that another person is responsible for the abortion such information should generally not be disclosed without the patient's permission. Dr. Teare considers that in practice the question of taking a dying declaration very seldom arises. In certain circumstances, however, such as when the doctor believes that a professional abortionist has been at work, Dr. Teare believes that it is usually possible to pass information to the authorities without disclosing the particular patient's identity. But in the end it must remain with the conscience of the individual practitioner, guided by the profession's ethical standards, to decide when, if ever, professional secrecy must be subordinated to public duty.

IMMUNITY IN MUMPS

Clinical and serological evidence shows that many more than those who have had a recognizable attack of mumps are immune to this infection, and that immunity often follows a definite exposure although mumps is not diagnosable in the contact. The attack rate among those who have never had the disease is very low compared with the high rate for measles. In 31 epidemics of measles involving 1,774 boys, the attack rate on susceptibles was over 60% in thirteen outbreaks, whereas in seventeen outbreaks of mumps in which 687 boys were attacked the rate per hundred was 36 in one, 25.8 in another, and 17.5, 11.4, and 10.5 in three more; in the remaining twelve outbreaks the rate failed to reach 10%.[1] Knowledge of why this happens in mumps depends upon two serological tests, one the complement-fixation test and the other the intradermal test. In 1942 Enders and Cohen[2] showed that complement-fixing antibodies were present in convalescent serum of artificially infected monkeys. What was true for the monkey was found equally true for man by the experiments of Stokes and his colleagues,[3] who infected children possessing no complement-fixing antibodies by inoculating them with mumps virus from an infected monkey's gland. These developed typical mumps with the usual antibody response, and since then, as Enders[4] has stated, the test has proved of great usefulness in obscure cases, especially of acute aseptic lymphocytic meningo-encephalitis with or without parotid swelling. Henle and her colleagues[5] have recently reviewed the subject of susceptibility to mumps. In 1,853 skin tests results were positive in 56%, negative in 30%, and doubtful in 14%. Out of 995 subjects with a past history of mumps, 73% were positive and 15% negative; whereas out of 858 with no history 37% were positive and 47% negative (the results in the other subjects were doubtful). The complement-fixation test was performed on 1,561 individuals: 426 gave a past history and 299 of these (70%) had a positive test; whereas 1,135 gave a negative history and only 207 (18%) were positive. Among those with a negative history 27% of those over 18 years and 17% of those under 18 years had both a positive skin test and complement-fixing antibodies, which is evidence of previous inapparent infection.

The acid test of immunity is exposure to infection. In the population of 1,878 studied by Henle and her colleagues 140 cases of clinical mumps were recorded. Twelve (1.17%) occurred among 1,028 with a previous positive skin test, 13 (5.5%) among the doubtfuls, and 115 (18.7%) among the 614 with negative skin tests. Of 123 cases of mumps among 451 individuals in schools and institutions, 3 (1.45%) occurred among the 207 with a positive complement-fixation test, and 120 (49.3%) among the 244 sero-negative reactors. Mumps occasionally attacks the same person twice (for instance, 9 second attacks among 687 boys and 2 among 255 girls), and these figures of Henle show that, just as true mumps fails occasionally to give immunity, so inapparent mumps fails to do so considerably more often. To show that a lasting immunity usually results from an infection Enders and his colleagues[6] studied six groups of persons, mainly children in institutions, as soon as one or two cases of mumps appeared. Of 163 found to be positive to serological tests, and therefore presumably resistant, only one was attacked; whereas of 285 with no reaction 56 were attacked. All these observations show that immunity to mumps may be gained and usually maintained by a recognized attack, and that a lasting immunity also develops in a large number of persons as a result of inapparent infections.

CO-OPERATION IN THE HEALTH SERVICE

It was never expected that co-ordinating the work of the three branches of the Health Service would be easy, for the administrative barriers alone are discouraging. The areas of regional hospital boards, for instance, are unrelated to those of local health authorities or executive councils, and hospital management committees have no strictly defined geographical areas at all. Nevertheless, there have been efforts at co-operation all over the country, and a committee of the Central Health Services Council has remarked on a number of these in a report[1] which is mainly concerned with examining the general principles which should guide the administrators of the three branches of the Health Service in their efforts to achieve co-ordination. By a process of elimination the committee concluded that a possible solution to this problem lay in the establishment of joint health consultative committees, not at present at regional level but at the level of the individual local health authority, executive council, or hospital management committee.

1 *Spec. Rep. Ser. med. Res. Coun., Lond.*, "Epidemics in Schools," No. 227, 1938, H.M.S.O., London.
2 *Proc. Soc. exp. Biol.*, 1942, **50**, 180.
3 *J. exp. Med.*, 1945, **81**, 93.
4 *Harvey Lect.*, 1947–8 Series, **43**, 92.
5 *J. Immunol.*, 1951, **66**, 535.
6 *J. exp Med.*, 1946, **84**, 341.

1 Central Health Services Council. Report on Co-operation between Hospital, Local Authority, and General Practitioner Services, 1952, H.M.S.O., London.

It is suggested that the area to be dealt with by each joint committee should be called a local health service area, and the report discusses in some detail the representation of the various local bodies on these committees. As a first step towards the establishment of joint health consultative committees it will probably be necessary to call regional conferences, one of the purposes of which will be to define the local health service areas within the region.

In putting forward the suggestion that local joint health consultative committees should be established, the committee frankly admits that it does not pretend to have found an ideal solution to the problem. One member of the committee in fact submitted a supplementary memorandum in which he states his conclusion that "such a mass creation of additional committees would, on balance, do more harm than good." This is perhaps too pessimistic a view, for the important thing is to bring together as often as possible those who administer the various branches of the Service, so that all are aware of each other's future plans and present problems. In fact, as the committee recognized, there is the greatest need for what it calls "*ad hoc* co-operation among officers." If this could be improved existing difficulties would be many fewer. It is a serious reflection on contemporary bureaucracy that the committee has had to look for other means of achieving co-operation "which will work where personalities are conflicting or where officers are so heavily engaged in discharge of the functions of their own authorities that they overlook the effect of their actions on others."

THE WORK OF W.H.O.

The third full year of activity of the World Health Organization is reported in a bulky volume of 200 large pages.[1] The Director-General, Dr. Brock Chisholm, speaks of a gradual but unmistakable development of world health consciousness. The right to health of under-privileged peoples is no longer left to a hopelessly small number of missionaries and other humanitarians to apply in practice: it is seen to be the duty of countries more richly endowed with resources and more skilled in their use and conservation to help the less developed to have the scientific and medical means of improvement.

W.H.O. has grown into an elaborate organization. Its active membership covers 69 States; 10 other States (Russia and other European countries behind the curtain, and China) are described as "inactive members." Japan, Spain, and Panama accepted or ratified the constitution in 1951. The Organization commands the service of advisory panels of experts in a wide range of subjects, from antibiotics to venereal infections, from nutrition to drugs of addiction. The total membership of these panels in 1951 was 871. Since 1947 the Organization has awarded 1,500 fellowships to officers in the health services of different countries, enabling them to receive advanced training abroad. The nationals of 73 countries were among the 655 men and women who received such fellowships last year. Another activity of the Organization is its programme of conferences. It arranged 37 of these, mostly at Geneva, in 1951, also 22 symposia, seminars, and teaching courses. The report describes field campaigns against malaria in a number of countries, research and other activities in connexion with various communicable diseases, and technical assistance in tuberculosis control. At the Tuberculosis Research Office in Copenhagen, maintained by W.H.O., much useful work is being done, particularly a study of mass B.C.G. vaccination. One of the most important achievements of the Fourth Assembly last year was the adoption of international sanitary regulations, and these are now being put into operation. The protection of isolated communities presents special difficulties, which are being investigated.

The epidemiological information service is becoming more important. As many as 7,000 messages, reports, and statistical bulletins are received annually, abstracted, and the required information distributed to national health administrations and quarantine officers all over the world. The report also contains details of the work in the six regional organizations. The regional offices are at widely different stages of development. In Africa the work is as yet hardly under way; in the Eastern Mediterranean it is in the course of planning; some work has been started in the West Pacific; and in South-east Asia the results of several years' preparatory work are beginning to bear fruit. In the Americas W.H.O. already has solid achievements to its credit, and in Europe much highly specialized work is continuing. The budget of W.H.O. runs to over $7.5m., of which the United States, the United Kingdom, and France contribute one-half.

A word should be said about the excellence of the production of the report, the readability of its matter, and the interest of its illustrations, though the absence of an index is a drawback. Like all international publications, it suffers from "initialitis": U.N.E.S.C.O. we know, and U.N.I.C.E.F. we are ready to accept, but here are a score of others, including U.N.R.W.A.P.R.N.E., C.C.I.C.M.S., W.F.U.N.A., and U.N.K.R.A.[2]

INCOME TAX AND SPENS

Many taxpayers who are professional men have a long-standing grievance against the Treasury. Medical men and women whose income consists in a salary are treated by the income-tax authorities with a severity unknown to their colleagues who obtain their income in fees. A doctor who subscribes to the B.M.A., a learned or specialist society, a defence society, and a library, who buys medical books, journals, and instruments, who runs a car, and who pays for professional telephone calls, can claim income-tax relief under his expenditure (with certain provisos) if he is assessed under Schedule D. The salaried doctor under Schedule E cannot claim for them unless they are "necessarily" incurred in the performance of the duties, which is usually construed as forbidding the allowance unless his employers specifically require the expenditure as a

[1] *The Work of W.H.O., 1951*, H.M.S.O., London.
[2] The U.N. Relief and Works Agency for Palestine Refugees in the Near East; the Council for the Co-ordination of International Congresses of Medical Science; the World Federation of United Nations Associations; and the U.N. Korean Reconstruction Agency.

condition of his employment. And in general they never do. As regards membership of the B.M.A., it is important that they should not, for it has always been the Association's policy—and this underlies the dispute with Durham County Council—that no doctor should be compelled to join the B.M.A. or any other professional organization or trade union.

The full-time hospital doctor is hard hit by this distinction. His need to belong to various societies and to replace instruments and outdated textbooks is just as great as that of his colleague practising on his own account. Such expenditure is essential to his professional efficiency, but in the view of High Court decisions is regarded as not allowable. The law must be taken as it is, but if the Spens recommendations for consultants are to be properly fulfilled the whole-time salaried doctor should not be at a disadvantage. The Spens Committee recommended that "all specialists engaged either whole-time or part-time in the Service should be paid, in addition to the remuneration recommended above [in the Report], any sums which represent expenses necessarily and reasonably incurred in the course of their work." And the Committee had evidence on various expenses "which must be met if the specialist is to perform his duties efficiently." These included "car expenses; expenses of travel apart from the use of a car; the cost of renewal of instruments and other equipment; the cost of books and journals, preparation of scientific papers, and subscriptions to professional societies; printing, stationery, postage, and telephone costs; expenses of attendance at national and international professional meetings; and the expenses of visiting hospitals and clinics at home and abroad, and entertaining visiting colleagues." There is little doubt that many of these expenses are not being adequately met at present. The Spens Committee suggested that they might be refunded after they had been incurred, or that appropriate expense allowances might be attached to the posts held by consultants and specialists. It is along these lines that the profession's representatives are negotiating through Whitley machinery for adequate payments. Fulfilment of the Spens recommendations should immediately do away with financial disparity between whole-time and part-time consultants in this respect and at the same time ensure that the expenses of both are properly met.

THE PURPOSE OF HOUSE APPOINTMENTS

Recent discussions of plans for a year of compulsory house appointments before medical registration have shown that many people in this country are unfamiliar with experience in America and Canada, where a large number of medical schools and licensing bodies require a year's internship before giving a degree or licence to practise. A monograph on the internship by Dr. R. L. Pullen[1] will therefore be of interest (though a price of 9s. 9d. for an essay of 7,500 words in a paper cover seems excessive even in these days of inflation). Although there are considerable differences in the organization of medical education and the staffing of hospitals in the U.S.A. and this country, the problems affecting house appointments are similar. Common factors are the demand for at least one year's house appointments before registration, compulsory military service, the up-grading of community hospitals, and the development of specialties. There are now more internships in the U.S.A. than medical graduates to fill the vacancies, but many of these internships are unsuitable for the recent graduate. Hospital practice is largely concerned with surgery, much of it nowadays of a highly specialized nature, whereas the work of the general practitioner is largely medical, some 50% of it mainly psychological. The recent increase in "residents" (registrars) has had the result that the house officer has become the forgotten man between the medical student and the resident, and his duties and responsibilities have been curtailed almost to vanishing point. This applies not only to the surgical specialties, in some of which the house officer may even find difficulty in getting into the operating theatre, but also to the medical departments of teaching hospitals with their numerous research staff. Certain specialties such as anaesthesia, radiology, and clinical pathology are already for practical purposes closed to the intern, and the specialties in general have become too numerous for him to move through them all in the course of one year. It would be unreasonable to demand two years of house appointments, particularly in view of compulsory military service.

There does not seem to be complete agreement about the purpose of the compulsory year's internship. "The rotating internship . . . provides for supervised experience in the major clinical divisions of internal medicine, surgery, obstetrics, and paediatrics, together with training in anaesthesiology, roentgenology, and pathology. The mixed internship offers training in two or more, but not all, of the major divisions. A straight internship is limited to supervised experience in a single major clinical division, including its related sub-specialties." If the internship is a preparation for general practice it should be a mixed or rotating service; if it is to be a preparation for a specialty, then a straight or special service will be preferred. If it is to be a period of further education—and this appears to be Dr. Pullen's hesitant choice—then it should take the form of a highly organized period of resident study.

Many will feel his choice a mistake. The medical student is already too long in leading-strings, and it is impossible for the universities to exercise the intimate control over the hospitals that would be demanded by this sort of programme. Whatever a man is going to do later, he will benefit from a mixed or rotating internship, and if there are too many jobs competing for too few interns it should be all the easier to limit the compulsory internship to the suitable jobs. Getting the work of the hospitals done and providing junior staff for the specialties is another problem. Some may question whether the recent multiplication of registrars and house officers in this country was the best way of doing this, and may think that there was something to be learned about methods of staffing from the old municipal hospitals as well as the teaching hospitals.

[1] *The Internship*, 1952. Oxford