

Management Science

DEVELOPMENTS in operational research and other sciences in management have been so rapid that it is not surprising to learn that the abstracts published by the International Literature Digest Service now run to 63 pages (*Operations Research/Management Science*, 2, No. 1; 1962. 75 dollars annually. Published by Interscience Publishers Inc., 250 Fifth Avenue, New York 1, N.Y. Copies are available in the U.K. from Interscience Publishers Inc., 88-90 Chancery Lane, London, W.C.2). Among the many sections are topics dealing with the management and conduct of operations research and related functions, optimal allocation, queueing, game theory, simulation models and Monte Carlo techniques, miscellaneous mathematical methods, probability and statistics and other methodology or special models.

Ultra-sonic Cleansing

THE British Launderers' Research Association has continued work on a laboratory scale on the application of ultra-sonic or sonic energy to the cleansing of soiled fabric. With the use of a piezo-electric type of transducer formed in the shape of a hollow roller, it has been found feasible to clean artificially soiled fine cotton fabric. It is first soaked in a hot soap/metasilicate solution for 3 sec, mangled to remove excess moisture and then exposed to the sonic radiations for one second in a bath of cold soap/metasilicate solution. The exposure times used make it possible to run the fabric round the transducer roll at speeds in the region of 100 ft. per min. Thicker fabrics require higher power per unit area to achieve the same degree of cleansing. The energy supply has been taken from a General Electric Company valve generator and investigations are being made into the alternative use of a motor-driven alternator for producing electrical energy at a higher efficiency and at a lower cost. Although at present there is no suggestion that ultra-sonic or sonic energy could supplant the methods developed with the continuous processing machine, the results being achieved are sufficiently encouraging to warrant a continuation of this experimental programme. It may well be that some form of ultra-sonic cleansing will find a useful application in the removal of small areas of resistant soiling that might be left on an article after it has passed through a high-speed continuous-washing processing machine rather than return the article for a normal re-wash. (Annual Report for the year 1960-61. Pp. 32. Hendon, London: British Launderers' Research Association, 1962.)

Addiction-producing Drugs

CONTINUING its work of advising on notification, the World Health Organization Expert Committee on Addiction-producing Drugs recommends in its twelfth report exemption from the provisions of international control for oxpheneridine, (-)-3-hydroxy-N-propargyl-morphinan, metethoheptazine, methepazine, and two preparations of diphenoxylate (*Technical Report Series*. No. 229: Pp. 16. Geneva: World Health Organization; London: H.M.S.O., 1962. 1 Swiss franc; 1s. 9d.; 0.30 dollars). Four diphenoxylate preparations having now been recommended for exemption, the Committee considers it appropriate to propose a general exemption for such preparations provided they contain not more than a certain concentration of diphenoxylate. On the other hand, noracymethadol is considered to be an addic-

tion-producing drug comparable with morphine, while nicocodine and the four compounds designated by the committee as nethadone-intermediate, moramide-intermediate, pethidine-intermediate-A and pethidine-intermediate-B are all found to be convertible into addiction-producing drugs and therefore subject to the relevant provisions of international control. Concern is expressed about continuing traffic in heroin. In some areas, limitation of the use of opium appears to have encouraged opium addicts to turn to heroin, which has been more readily available. The controls on the illicit production of heroin and on the traffic in this drug need to be enforced more strictly. Much stress is laid by the Committee on the necessity for providing the medical profession as early as possible with complete and accurate information on the addiction-producing and habit-forming properties of new drugs and on their therapeutic properties. The further development of media for disseminating such information should be encouraged. The Committee noted that the Single Convention of Narcotic Drugs, drawn up in 1953, affords the World Health Organization the opportunity to initiate the examination of dangerous drugs and to adapt the extent of control to the degree of hazard to public health.

Venereal Diseases and Treponematoses

IN 1961 the World Health Organization undertook a survey on the incidence of syphilis and gonorrhoea. Thirty-one countries reported an increase of early infectious syphilis and 30 an increase of gonococcal infections between 1957 and 1960. The increase in syphilis in 1960, as compared with 1959, amounted to 19 per cent in Canada, 30 per cent in England and Wales, 45 per cent in the United States and 85 per cent in Denmark. A similar increase was reported in other parts of the world. Thus, in many countries, despite settled conditions, good health services and potent drugs, syphilis and gonorrhoea are again becoming a cause of concern to health administrations. In the failure to control gonorrhoea, the gradual development of resistance of the gonococcus to penicillin in some countries and to streptomycin in others is significant, but probably not of basic importance. Research carried out under auspices of the World Health Organization at the Gonococcus Centre of the Statens Serum-institut, Copenhagen, indicates that cases reported as 'resistant' are more often due to rapid re-infection than to gonococcal resistance to the drugs used (*WHO Chronicle*, 16, No. 6; June 1962).

Activities against yaws continue to be aided by the Organization and by the U.N. International Children's Emergency Fund. It is estimated that, since 1948, almost 280 million people have been examined and some 36 million people treated with long-acting penicillin in mass campaigns in Africa, the Americas and Asia, assisted by the World Health Organization. The prevalence of clinical yaws has fallen in some countries from more than 10 to less than 0.5 per cent with a relatively small proportion of seroreactors in the younger age-groups. By 1963 or 1964 many of the internationally assisted yaws campaigns will have passed into the surveillance phase. During 1961, the World Health Organization started an appraisal of the results of the yaws campaigns and the methods used. Special attention has been directed to the co-ordination of anti-yaws activities with those of other communicable disease control programmes and of the rural health services.