

behavioural consequences. There are people of subnormal intelligence easily led astray or bewildered in city life; demobilized old soldiers on their own after 30 years of service life; solitary men who with even a little friendly supervision will cease going out drinking: all can receive support from a long-stay hostel. Long-stay hostels for people in these two categories are preventive medicine of a most important kind.

Thirdly there are groups of people for whom their home (or present social setting) is an obvious precipitant of behavioural disorder. They include some disturbed children, disturbed adolescents, drug addicts, alcoholics, and recurrent delinquents, and they need a therapeutic home from home. Both local authorities and the health service have much to learn here from the work of private organizations such as the Simon Community and the Richmond Fellowship.⁸ A range of therapeutic hostels is needed to serve the different groups, and the problem arises of how far the treatment will be by social workers and how far by psychiatrists. Because psychiatric illnesses often tend to be prolonged (even if there are intermissions) but are eventually mastered, there is a continuing need for the convalescent services of transitional hostels to help people back to normal work and to renew their social relationships, broken by the illness.

Studies are needed of the variety of functions that hostels must serve as well as of the role of the doctor, social worker, nurse, teacher, and lay helper in each. The Second Green Paper² proposes that hostels will be operated by both health boards and local authorities according to the degree of medical care required. Will this create unhealthy rivalry between doctors and social workers?

A recent publication from the Buckinghamshire County Council⁹ deserves to be widely read as a start to the debate. Written by a social worker, it sets one local authority's modest provision of hostels against the general background and points above all to the need for the special training of hostel staff and a supportive rather than hierarchical administration. Where it could say more is in closer analysis of the population's present needs and how medical and social services can collaborate to serve them. There may be a need for more censuses of private hostel and lodging-house residents, and other factual surveys may be required as a basis for good planning. Perhaps this latest paper will stimulate others to discuss these questions.

Phenylketonuria

Now that the semiquantitative estimation of phenylalanine in capillary blood has virtually superseded the Phenistix testing of urine as a screening procedure it is appropriate to consider what has already been achieved by the treatment of phenylketonuria, and also to review the organization which has to be set up to deal with cases detected by screening programmes. It is generally agreed that the dietetic treatment of phenylketonuria will, if started early enough, prevent severe mental retardation, but rigid proof of the beneficial effects of treatment has been hard to obtain. Recently F. P. Hudson and his colleagues¹ have analysed 184 cases in which treatment was

started before the age of 4 months. In 97 cases whose treatment had continued for at least 2½ years the mean intelligence quotient was 90.4, while that of their parents was 105.5, of their unaffected sibs 105.2, and of affected sibs (including both treated and untreated individuals) 53.3. A previous combined study² showed an inverse ratio between the intelligence quotient and the age at which treatment was started.

Some of the stimulus for the setting up of regional screening programmes was provided by a circular from the Department of Health and Social Security³ which recommended that the testing should be done between the 6th and 14th days of life by means of the Guthrie bacterial inhibition test. The exact timing and methods used are not yet uniform, so that some comparisons between them will be possible. Some centres, for example, are using one-dimensional chromatography, which will also detect other disorders of amino-acid metabolism such as tyrosinaemia, homocystinuria, maple syrup disease, histidinaemia, and hyperprolinaemia.

Obtaining a blood sample is a more serious matter than the testing of urine, and parents should be informed of the purpose of the test well in advance of the taking of the specimen. The result of the test, even if negative, should be given to the parents. All staff concerned in taking blood specimens should be formally instructed in the correct technique and sufficiently informed on the subject to deal confidently with parents' questions. The medical officer of health is notified of all births and can keep a register of all infants tested, so he can arrange for the testing of any infant whose test was omitted. A positive screening test requires confirmation by a second similar test. When two tests are positive the laboratory should inform the midwife or health visitor who took the blood, the medical officer of health, the family doctor, and the paediatrician in whose area the infant lives. The baby should then go into hospital for further investigation. In some regions centralization of the biochemical investigation of positive cases may be necessary, but subsequent treatment and supervision should be possible locally if adequate facilities are available.

Haemostasis and the Uterus

The haemostatic mechanism appears to be designed to work locally in immediate relationship to damaged tissue, with drastic limitation of its more remote effects. The stimuli for contraction of blood vessels, adhesion and aggregation of platelets, blood coagulation, and the activation of the fibrinolytic system arise in the damaged area where the blood is in contact with unusual surfaces and where tissue materials gain entry to the circulation.

This powerful but local effect overwhelms the circulating inhibitors, normally in considerable excess. Where blood flow is halted, active products accumulate, and they favour haemostasis by promoting contraction of blood vessels, plugging by platelets, and formation of fibrin. In moving blood the active factors diminish in concentration as they are carried away from the site of injury and become diluted in the mass of the circulation. Moreover, intermediate substances in the process of coagulation are rapidly cleared into cells of the reticuloendothelial system in the liver and elsewhere.^{1 2}

The capacity of the reticuloendothelial system to clear the active intermediates of coagulation may have great significance

¹ Hudson, F. P., Mordaunt, V. L., and Leahy, I., *Archives of Disease in Childhood*, 1970, **45**, 5.

² Dobson, J., et al., *New England Journal of Medicine*, 1968, **278**, 1142.

³ Department of Health and Social Security, *Screening for Early Detection of Phenylketonuria*. London, H.M.S.O., 1969.