facilities that exist for the detection of cancer, and of preventive medicine in general. It is, perhaps, unfortunate that the appeal launched by the campaign last week should coincide with the publication of the report which, in urging that caution be the keynote in the development of screening programmes, may do much to throw cold water on the campaigners' efforts.

MEDICINE

Avoiding Towers of Babel

THE use of computers in hospitals is becoming increasingly important, and computing facilities, particularly within the National Health Service, are expanding rapidly. Because the range of uses for computers is so wide and so many different people—from nurses to computer specialists—need to use the facilities, the question of what language, or languages, to use looms large.

A committee set up by the Ministry of Health in 1967 to consider the need for a special medical computing language has now published its report (Ministry of Health, free). The committee felt it could not at this stage justify the development of a new language, because so many of the computer languages already in existence have not yet been fully exploited. There is, however, a case for creating a standard command language so that hospital staff members can communicate with different computers in different hospitals without having to learn new procedures. A command language could be used by people without any training in computer science and would consist of accepted words and phrases like "tell blood sugar" or "tell diet" which would instruct the computer to give the details required.

Programmes are needed to implement the command words and also for a wide range of clinical, administrative, managerial and research activities. Research into the routine aspects of diagnosis, operational research programmes and statistical analyses, for example, rely heavily on computer techniques. Clinical applications include the control of the issue of drugs, the organization of laboratory services, therapeutic and diagnostic radiology and monitoring patients.

Most of these applications involve at some stage obtaining data from, and perhaps updating, a file in the computer—the patient's record, for example. This means that the language used must be capable of efficient file processing. Cobol is the only widely used language with this facility, although experimental languages such as BCL (used at the universities of London and Cambridge and the Massachusetts Institute of Technology) and POP 2 (developed at the University of Edinburgh) are also contenders. The language must be simple to use and flexible enough to deal with various tasks. On the other hand, if the language is made too conversational, the time taken by the computer to compile it will be excessive. With these considerations in mind the committee suggested that a programming system should be so designed that programmes in any language can communicate with a common file structure and that segments of programmes in different languages should be capable of being combined into a single programme. The committee concluded that the new languages, BCL and POP 2, seem promising but need to be carefully tested before they can be recommended and that, in the meantime, the well established languages, Fortran and Cobol, should be used.

CHEMISTRY

Keeping a Check

THE implications of the switch to metric units were at last brought home to the British public last week. The Government Chemist, in his report for 1967 (HMSO 22*s* 6*d*), revealed that the ancient system of measuring alcoholic strength as a percentage of proof spirit is to be replaced by a new metric system.

Apart from routine checks on alcoholic drinks and tobacco products and a miscellany of other odd jobs for the Customs and Excise, including classifying various imports into customs tariff categories, the laboratory is empowered to provide advisory services to any government department that requests them and has statutory obligations under the various food, drug and pesticide acts. As an indication of the scale of all these activities, the laboratory examined about 1,000 products of one sort or another every working day and the work ranged from monitoring radioactive pollution near nuclear power stations and air pollution near the Elgin marbles in the British Museum to examining documents for forgeries and toys for lead paint.

With the increasing use of organochlorine compounds in agriculture, the laboratory is becoming preoccupied with monitoring agricultural produce for contamination. Since 1962, for example, it has been analysing samples of home-produced and imported milk, butter, and meat fat-foods which carry the maximum hazard arising from the use of pesticides. The amount of dieldrin in milk produced in Britain gives cause for concern. Last year a substantial number of samples had more than the limit of 0·003 p.p.m. proposed by the Food Additives and Contaminants Committee in 1967. On the brighter side, the levels of dieldrin in mutton fat have dropped since the decision to prohibit the sale of sheep dips containing the compound (see Table 1). The levels of DDT in Australian and New Zealand butter, which account for 75 per cent of the British consumption, seem needlessly high (see Table 2).

As well as analysing food and domestic animals, the laboratory, in conjunction with the Natural Environment Research Council, monitors wildlife for traces or organochlorine compounds and last year identified another and unexpected source of contamination. For several years unidentified organochlorides, with long retention times, had been appearing in increasing amounts in chromatograms of eggs and fat samples of wildlife. Following a lead from Sweden, these compounds were identified last year as polychlorobiphenyls. Polychlorobiphenyls and polychloroterphenyls are not used in pesticides, nor are they pesticide metabolites, but they are widely used in paints, plastics and insulating fluids. They are apparently entering the food chain of wildlife and probably represent a greater threat than pesticides, especially to birds. A sample of liver taken

Table 1. DIELDRIN CONTENT OF MUTTON KIDNEY FATS 1964–67

Year	No. of samples	Dieldrin (p.p.m.) Range	Mean
1964	128	0 to 12·4	0·84
1965	107	0 to 8·2	1·1
1966	101	0 to 5·3	0·44
1967	76	0 to 8·0	0·24