occurring at a longer time of 51–90 seconds. Even more interesting, there was a small secondary peak at 111 + seconds. Analysis of the TTT in other subjects with various diseases suggests that the existence of a long TTT may have some clinical significance. A highly significant correlation between plasma and leucocyte AA values was found and a significant relationship between TTT and leucocyte values. There was, however, no relationship between plasma AA and TTT. It can therefore be concluded that TTT, like leucocyte AA values, provides a measure of tissue AA storage and metabolic requirements.

Serum cholesterol levels were estimated in the G.S. group as part of a screening programme for coronary heart disease conducted by the Irish Heart Foundation. In the younger age groups there was no significant correlation between serum cholesterol and TTT. There was, however, a significant correlation between cholesterol and tissue AA values in the tongue in the oldest age group.

The tongue test provides a simple and quick method for measuring the turnover rate and metabolism of AA in the tongue and is representative of the tissue status of AA. The AA tongue test time, like that of the AA concentration in the leucocytes, falls with increasing age. It shows certain population characteristics which may be associated with pathological conditions.

Screening for Coronary Heart Disease Risk Factors. N. HICKEY (*Irish Heart Foundation*).

In 1969 the Irish Heart Foundation began a screening programme for coronary risk factors. The object of the study is to test the acceptability of such a programme and to determine the yield of high-risk individuals.

The screening procedure was outlined and the risk categories of the initial 10,000 male subjects presented. The prevalence of overt coronary heart disease and of high-risk category individuals was approximately 19% of those screened.

A follow-up study among the general population and in industry will shortly start to determine the extent to which the risk factor status of individuals can be altered.

SECOND SESSION (Chairman: J. PEMBERTON)

The Association of Place of Birth in South Wales with Central Nervous System Malformation Prevalence. C. J. ROBERTS (*Dept. of Social and Occupational Medicine, Welsh National School of Medicine, Cardiff*).

There is good evidence that environmental influences play some part, possibly a major part, in the aetiology of neural-tube malformation in the human embryo. A strong pointer in this direction is the degree to which malformations vary from country to country and from area to area within countries.

For three years beginning 1 January 1964 information about all infants born to women resident in a defined area in South Wales and about all the congenital defects identified in the birth population has been collected. The area surveyed was defined by the county boundaries of Glamorgan and Monmouthshire. In the three years of the investigation, 92,980 infants (live and still births) were

born to women resident in these areas; of these infants 90,921 were the outcome of singleton pregnancies and 740 of these were ascertained to have neural-tube defects.

Marked differences in area prevalence were observed particularly high rates were recorded in certain mining valleys of Monmouthshire and those of East and West Glamorgan. When (for the purposes of more detailed statistical analysis) the total sample was divided into eight subpopulations defined (before data were collected) on the basis of certain geographical, occupational, and cultural characteristics, area differences (although not so prominent) were still in evidence. These ranged from 9.0 per 1,000 singleton births in the eastern mining valleys of Glamorganshire to 5.3 for Newport County Borough. However, since parity, social class, and maternal age were also found to be strongly associated with CNS malformation prevalence, the problem was to determine the extent to which the observed association between area and malformation prevalence was dependent upon the secondary association of both variables with parity, social class, and maternal age. This was approached by use of multivariate analysis in which the dependent and independent variables were measured on a binary scale.

The results of this analysis showed that adjustment for biological parity, social class, and maternal age further reduced the magnitude of the area differences reported above. On the basis of these findings it is concluded that in South Wales the effect of area (defined in this study on the basis of occupation—mining/non-mining and geographical—east/west, valleys/coastal plan criteria) is considerably less than that of biological parity, probably less than that of social class, but greater than that of maternal age.

Social Attitudes to and Utilization of Cervical Cancer Tests. N. D. RICHARDS and P. J. M. MCEWAN (*Centre for Social Research, University of Sussex, Brighton*).

The Yield of Disease obtained at Screening a Middle Aged Population. HARRIET TREVELYAN (*Dept. of Clinical Epidemiology, St. Thomas's Hospital Medical School, London*).

The South East London screening study is a controlled trial of multiphasic screening and surveillance in middle age. The aim is to evaluate the effect of such screening in terms of (1) the long-term effect on morbidity and mortality, and (2) the yield of previously unknown disease which is considered to require management.

The study population includes all individuals between 40 and 64 years in nine general practitioners' lists in two group practices. This population is randomly allocated to screening and control groups. The screening group is invited for screening every two years. The screening process consists of a symptom questionnaire, anthropometry, electrocardiography, respirometry, blood pressure recording, tests of vision and hearing, blood tests and a physician's examination.

Of those allocated to the screening group, 3,100 individuals were known to be still on the practice list. Of these 73% accepted and were screened. The refusers were older, had a lower consultation rate in the previous