

LETTER FROM TEL AVIV



Hearts and national origin

**Birthplace is correlated
with a tendency to develop
heart disease**

by Hadassah Gillon

Ethnically the population of Israel is widely diverse, making her an ideally suited nation for a major epidemiological project in heart disease, a project which seeks to find, among other things, whether a man's birthplace in any way influences the health of his heart. There have been other such studies, but not in so tailor-made an environment.

The project, underway in Israel for the past six years, is investigating the occurrence and causes of heart disease in more than 10,000 male civil servants of varied ethnic origins, most of whom have lived in Israel for at least 10 years. Preliminary findings from research coordinated by Dr. Jack H. Medalie show that immigrants from Middle East countries (excluding Israel) have a third the incidence of heart disease of those immigrants coming from Europe and Africa. The highest incidence of heart disease is among persons from central and eastern European countries.

In addition, the research has shown, there is significantly higher incidence of heart attacks among people of higher educational levels and concomitant higher socioeconomic standards of living, who also exhibit higher anxiety indices and who are present or past smokers of cigarettes. It adds to existing evidence that heart disease is directly associated with high serum cholesterol, high blood pressure and high blood uric acid.

This heart research project, the most extensive teamwork medical research effort in which Israel has so far been involved, is a joint United States-Israel collaborative investigation. It is being conducted by the Hadassah Medical Organization, the U.S. National Heart Institute and the Israeli Ministry of Health.

The team selected a random sample of 10,059 men, 40 years old and over, who are permanently employed by the Israeli Civil Service or by the cities of Jerusalem, Tel Aviv and Haifa. The aim was to determine and evaluate the incidence of heart disease in a sample representing a range of occupations from highly responsible administrative posts to clerical jobs to simple unskilled labor. Because of the special interest in differences among cultural heritage, the team selected six roughly equal groups of men born in Eastern Europe, Central Europe, Southeastern Europe, North Africa, Middle East and Israel.

The routine examination of the 10,059 men consisted of a physical

checkup, medical history, ECG recording, a dietary questionnaire and a psychosocial questionnaire.

An unusual check was that the ECG was recorded both as a paper tracing and on electromagnetic tape. The paper tracing was available for immediate interpretation by the physician while the tape was sent to the Instrumental Field Station of the U.S. Public Health Service's Heart Disease Control Program for measurements and interpretation by computer.

Of the 10,059 subjects, 342 were identified as having definite angina pectoris and an additional 464 individuals were classified as suspect of heart disease; the two together account for about 8.0 percent of the study population.

Among those persons showing heart disease, there was a significant relationship between the occurrence of the disease and the age and birthplace of the subjects. There was a definite increase in the occurrence of heart disease with rise in age; those in the age range of 50 to 54 had double the incidence of those under 50 years old, whereas in those over 60, the incidence more than redoubles. The average age of the participants from Eastern Europe was 51 years, from the Middle East, 47 years and from North Africa, 45 years.

Preliminary evidence indicates a definite correlation between heart disease and ethnic origin, making it more prevalent among men who immigrated to Israel from Europe and a third as frequent among those from the Middle East. About 95 percent of the men in the study are married, though the size of their families and standard of living varies according to their homelands. European immigrants—the high risk group—have the smallest families and the most comfortable living conditions, the study shows. Two follow-up studies are being made to see if the frequency of relationship between birthplace and heart disease is maintained.

The presumed relationship between high blood pressure and heart disease, Dr. Medalie and co-workers report, is reconfirmed by the project, which also indicates that there is no connection between an individual's blood group and proneness to a heart attack. Similarly, they report no correlation between heart disease and body build, but find that the higher a person's educational level, the greater his risk of heart trouble.