

International Epidemiology of Diabetes

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Populations in eleven countries (three continents) have been studied. The data are unusual in several respects: Representative samples of the general population were tested; common methodology made possible comparisons among countries with widely divergent environmental conditions; several correlates were determined in all populations including *detailed* nutrition studies; and *all* subjects were tested after oral glucose (1 gm./kg.). This is the first report concerning Honduras, Panama, Costa Rica and of certain observations in other populations.

Among age-matched subjects of over thirty-four years of age, prevalence of "impaired" tolerance (two-hour venous glucose over 149 mg. per 100 ml.) was: Central America (2,285 subjects) 4.6 per cent (Costa Rica 5.8 per cent, El Salvador 3.4 per cent, Guatemala 4.4 per cent, Honduras 4.7 per cent, Nicaragua 5.9 per cent, Panama 2.9 per cent); Malaya 4.5 per cent; East Pakistan 1.5 per cent; Venezuela 7.3 per cent;

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Uruguay 6.8 per cent. The U.S. population has not been tested in precisely this manner but roughly 15 per cent of Americans in this age group have "abnormal" glucose tolerance by the criteria above. In all countries the prevalence in these older subjects is two to three times the rate for the entire population.

The specificity and sensitivity of identical screening tests for diabetes varied widely among countries, indicating the difficulty in evaluating and comparing prevalence data when only positive screenees are loaded with glucose.

The association between parity and diabetes varied among countries but was impressively positive in most. However, in some there was also an association of parity and adiposity. Among other positive correlates of diabetes prevalence were socio-economic status, serum cholesterol, race, sex and certain electrocardiographic abnormalities. With respect to nutritional factors (calories, carbohydrate, fat, animal fat, nutritional moieties as per cent of calories, etc.), the most impressive associations were those between diabetes prevalence and indices of adiposity (such as per cent of standard weight), irrespective of the source of calories. When matched for adiposity, differences in prevalences between sexes and among countries were usually modest.