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Investigation is being conducted of the effect of urban blood lead levels on the activity of glucose-6-phosphate dehydrogenase (G6PD) in the red cells (rbc) of enzyme deficient negroes. Blood lead was determined in 202 students, age 6 to 17, suggested as deficient by initial mass screening with two or three serial assays including G6PD, 6 PGD, red cell indices and reticulocytes plus sampling for GSH reductase, ATPase, ALA dehydratase, and haptoglobins. Significant findings include: (1) G6PD deficient (0-4 μM) negroes had a significantly higher concentration of lead in both rbc and whole blood when corrected for anemia, as compared with nondeficient individuals of comparable age, sex, socioeconomic score, and census tract. This is the first demonstration of a genetic susceptibility to an air pollutant. (2) Whole blood lead, corrected for anemia is preferred to red cell lead since intracellular accumulation of lead progresses rapidly in vitro. (3) Evidence of the direct effect of ambient lead on blood lead is derived from the significantly higher blood lead in elementary school children in central Omaha which has industrial as well as automobile sources of lead emission than in comparable students just three miles away; seasonal correlation with air lead levels at the sites is expected to be available.

A regional system for transport of sick neonates in Arizona. H. B. P. MEYER, L. WAGNER, and W. J. DORSON (Intr. by V. A. Fulginiti). *Good Samaritan and St. Joseph's Hosps. and Arizona State Health Dept., Phoenix; and Engineering Ctr., Arizona State Univ., Tempe, Ariz.*

In 1967, newborn intensive care centers were developed within two community hospitals having a combined delivery rate >8000 births/year. Two hundred twelve neonates were transported from rural hospitals to these centers between July, 1967 and June, 1970 by specially trained nurses from the centers under direction of a neonatologist. Characteristics of the infants, distance travelled and morbidity and mortality were compared according to a modification of Lubchenko's method. Mortality associated with IRDS was compared between infants transported from and infants remaining in hospitals of birth.

85% of transported infants had birth weights <2500 g. Observed morbidity (86%) and mortality (28%) exceeded predicted morbidity (65%) and mortality (23%) in these infants. Predicted mortality was the same in transported infants with IRDS remaining in their hospitals of birth (59%) exceeded mortality in transported infants with IRDS (32%). Infants originating within or beyond a 60-mile radius of the center had identical mortality (28%).

This transport system has made necessary care available to sick neonates born outside newborn intensive care centers with minimal compromise resulting from transport. Mortality has been independent of distance travelled.

What happened to I.Q. between four year and seven year in a selected collaborative project population. ROSALIND Y. TING, THOMAS F. McNAIR SCOTT, THOMAS E. ATKINS, and DONALD GOLDSTEIN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

One hundred eighty-one of 2341 4-year-olds had I.Q. below 70 (7.7%). 133 of 181 had I.Q. between 60 and 69 (73.5%). Of these 133, 94 Negro children were studied, on whom there was complete information available for analysis on maternal socio-environmental, prenatal history, pregnancy, labor, and delivery

records; examinations at birth, 4 months, 8 months; 1, 3, and 4 years. As controls, 94 Negro children matched as to birthdate and sex were used with an I.Q. above 90 on the 4 year examination.

The study children showed a higher incidence of low birth weight, delay in motor development at 1 year and delayed speech development at 3 years.

The mothers of these children had the following characteristics namely: a higher incidence of teenage pregnancy, low education, large family size, closer sibship and a low socio-economic index.

At 7 years of age of the 87 available children 6 (6.9%) still had an I.Q. below 70. 43 (50%) showed a gain to the 80-109 level, 34 (39%) showed a rise to the 70-79 level. Of the 74 available controls 13 (17.5%) dropped to 80-89 I.Q. level and 2 (2.7%) to the 70-79 level, while the remainder showed minimal changes in I.Q. points within the normal range. A further analysis of preschool and school activities, the I.Q. of siblings and the changes in socio-environment suggest that the availability of stimuli outside the home had contributed to the development to their genetic potential of the children in whom there was a significant increase in I.Q. points.

The predictiveness of infant developmental diagnosis. HILDA KNOBLOCH and BENJAMIN PASAMANICK. *Albany Med. Coll. and N. Y. State Dept. of Mental Hygiene, Albany, N. Y.*

The purposes of infant evaluation are to detect the child with organic disease of the brain and to identify factors which will modify the course of development. Follow-up of 199 infants seen between 16 and 52 weeks and re-evaluated at an average age of 7 years indicates the infant evaluation is highly predictive and points out some of the most important factors which affect school-age behavior. This report is confined to DQ (general developmental quotient)-IQ (Stanford-Binet) changes.

Infant neuromotor status and developmental quotient form the basic substrate, which is modified later by socioeconomic status and the occurrence of seizures after the infant examination.

Of the 30 non-defective infants who fell to IQ 75 or less at school age, only one was not explainable by associated adverse factors, singly or in combination: i.e., abnormal infant neuromotor status, subsequent seizures, lowest third in the socioeconomic scale or other specific diseases such as Down's or cretinism. In contrast, if the child is in the highest socioeconomic third his school-age function is good, even if adverse factors are present. Only 5 of the 48 children with IQs 106+ would not have been expected to achieve this level on the basis of their infant behavior; only one of these was in the lowest socioeconomic third.

Perceptual-motor, language, school achievement and central nervous system integrative functions, as measured by a battery of tests at school age, were predicted at the same high level by the infant examination. The data indicate the importance of clinical judgment in diagnostic evaluation in infancy.

Patterns of illicit drug use among patients in an adolescent medical service. MARION N. CHALL. *Teenage Service, Beth Israel Med. Ctr., New York, N. Y.* (Intr. by Saul Blatman).

The objective of this work is to describe the prevalence of various types of illicit drug use among adolescents treated in a comprehensive ambulatory medical service, located in a lower-middle and low-income area of New York City. About 65% of the