

women did not turn to their physician for any kind of assistance in dealing with their situation. The physician was utilized more for service or referral than for counseling. When compared to other sources of influence on the decision to abort, primary care physicians were found to be *relatively* important.

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Should There Be a Different Definition of Anemia In Black and White Children?

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While there has been no unanimity in deciding what level of hemoglobin concentration shall be used to arbitrarily define anemia in infants and young children, most working groups have accepted levels between 10.0 and 11.0 gm/dl depending upon age.¹⁻⁵

From data collected in the Preschool Nutrition Survey,⁶ which was based upon a national probability sample of U.S. children between 1 and 6 years of age, Black children were found to have a hemoglobin level which averaged about 0.5 gm/dl lower than White children of comparable age and socioeconomic status.⁷ Similar observations have been made among several thousand young children studied in the Ten-State Nutrition Survey⁸ and in the Health and Nutrition Examination Survey.⁴

Among 1,755 White children and 266 Black children in the Preschool Nutrition Survey⁶ who had serum iron and total iron-binding capacity determined, 1,241 and 163, respec-

tively, had transferrin saturations equal to or greater than 16 per cent.* Probability plots of hemoglobin concentrations are shown (Figure 1) for Black and for White youngsters between 12 and 71 months of age, who were included in the Preschool Nutrition Survey and whose transferrin saturations exceeded 15 per cent. As may be seen, the 50th percentile hemoglobin values were 12.1 and 12.6 gm/dl respectively, for Blacks and for Whites. This approximate 0.5 gm/dl difference between Blacks and Whites also existed at the 5 per cent level, i.e., the level commonly used to distinguish between "normal" and "anemic". With the exclusion of children with low levels of transferrin saturation (< 16 per cent), Black and White children still differ in hemoglobin levels and it appears to be a simple displacement of the distribution curves rather than shifts or alterations in their characteristics. Further, the distribution of serum irons, total iron-binding capacity and transferrin saturations among these Black and White children were the same. As may be appreciated, the distribution of hemoglobin values for all Blacks in

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* A state of iron deficiency was considered to exist with a transferrin saturation below 16 per cent.

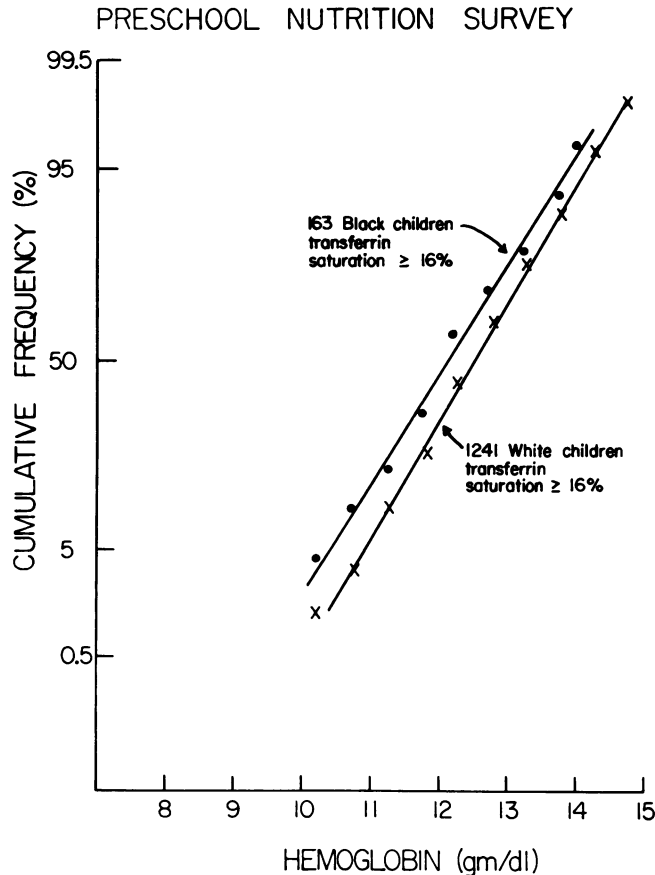


Figure 1—Probability Plot of Cumulative Frequency Distributions for Hemoglobin Data among 163 Black Children (shown as closed circles) and 1,241 White Children (shown as x's) Who were between 12 and 72 months of Age and Who had Saturations of Transferrin > 15 per cent. The Linear Pattern in Each Is Typical of a Single Gaussian Distribution.

the Preschool Nutrition Survey was strikingly similar to that reported by Schmaier et al.⁹

The evidence appears to be overwhelming that there is Black-White difference in hemoglobin level which is real and is not explainable on an income or socioeconomic basis.^{7, 10-13} Smith and coworkers at the University of Washington studied a small group of infants between birth and 18 months during which time intakes of iron exceeded the recommended dietary allowance.¹¹ After age 5 months, White infants' mean hemoglobin concentration exceeded that of Black infants by approximately 0.5 gm/dl. As was discussed, the differences may be explained on a genetic basis or an environmental basis or both.¹¹ Nevertheless, it appears appropriate to strongly support the recommendation that race specific norms for hemoglobin concentration be developed, published, and utilized.¹⁴

If separate norms for Black and White children were developed, implementation of their use in large scale federal programs such as that for Women, Infant and Children (WIC) would have at least two major effects. First, there would be a reduction in the proportion of Black infants and children considered to be anemic and at nutritional risk and who therefore necessarily require special food supplementation or medical intervention. Second, there would be an increase in the absolute number of young children (of all racial and ethnic groups) who could benefit from such special programs, but who are currently excluded because of limited funds. It could also be argued that some iron-sufficient children currently receiving supplemental iron salts would no longer be exposed to such unnecessary treatment if they were not considered to have anemia.

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