

**103** WIC AND SOMATIC AND PSYCHOLOGICAL DEVELOPMENT OF PRE-SCHOOL CHILDREN: THE NATIONAL WIC EVALUATION. David Rush, Nancy Sloan, José Alvir, Gail Garbowski, Albert Einstein College of Medicine, Dept. of Pediatrics, Bronx, NY.  
 We related age of onset of benefits from the Special Supplemental Food Program for Women, Infants and Children (WIC) to height, weight, Quetelet's index (wt/length<sup>2</sup>), head circumference, mid-arm circumference and triceps and subscapular skinfold thickness among 2142 representative poor children under five from 59 areas nationwide and behavior and cognition among 486 four and five year olds. We used Schaeffer's Infant Behavior Inventory, the Peabody Picture Vocabulary test and the forward and backward digit memory tests from the McCarthy Scale of Infant Development. We controlled for age and sex, and then for a wide range of additional social, demographic and somatic covariates.

Highly significant improvements in children's diets by WIC were not reflected by advantages in linear growth. WIC participants were significantly shorter than controls (0.8 cm). Early WIC recruits had no parallel decrease in head circumference. We conclude that a) the WIC program is targeted to appropriate (short and deprived) children; b) identifying adequate controls for WIC recipients may now be impossible, with the wide diffusion of the program; c) it is unlikely that WIC benefits had any effect on linear growth; d) early WIC benefits had some beneficial effect on later head, and presumably, brain growth. Prenatal WIC recipients had significantly better performance on the PPVT, and later recruits had significantly better (backward) digit memory. There were no significant differences in child behavior. The implications of these observations will be discussed.

**104** MATERNAL SELF-ESTEEM AND MASTERY IN RELATION TO INFANT BIRTHWEIGHT. Jill Schlansker, Marilyn Escobedo, Cheryl Cipriani, Carolyn McLerran, Maria Rendon, Roberta Davis, Lewis Gold (Spon. by YW Brans). The Univ of TX Health Science Ctr at San Antonio and Brooke Army Med Ctr, Dept of Pediatrics, San Antonio and Ft. Sam Houston, TX  
 Follow-up studies of very low birthweight (VLBW) infants have demonstrated that psychosocial as well as medical factors place infants at high risk for poor developmental outcome. Psychological resources of 40 new mothers were studied in a population of low-income Mexican-American women who delivered at Medical Center Hospital in San Antonio. Twenty subjects were mothers of VLBW infants (<1250 grams) and 20 were mothers of normal birthweight (NBW) infants. Groups were matched on year of infant's birth, birth order, sex ratio, ethnicity, years of education, and marital status. Prior to the infant's hospital discharge mothers completed the Rosenberg Self-Esteem and Pearlin Mastery Scales. Alpha reliability coefficients for the Self-Esteem Scale were .86 for the VLBW group and .65 for the NBW group (z=n.s.). For the Mastery Scale they were .78 and .34 (z=.04). Seventy percent of all mothers were found to have high levels of self-esteem and mastery scores were significantly related to self-esteem scores (r=.67) in the VLBW group. Contrary to expectations regarding the psychological resources of a low-income, minority population, mothers were found to regard themselves very positively, regardless of the infant's birthweight.

**105** OUTCOMES FOR ABUSED AND NEGLECTED CHILDREN OF MENTALLY RETARDED PARENTS. Elizabeth A. Seagull, Susan L. Scheurer (Spon. by W. Weil). Michigan State University College of Human Medicine, Department of Pediatrics/Human Development, East Lansing, MI.  
 Whether mentally retarded parents can care for their offspring is a difficult problem to assess and treat. The Family Assessment Clinic Team has seen over 1000 abused and neglected children over the last 6 years for multidisciplinary assessment and dispositional planning. Seventeen cases in which at least one parent was borderline or mildly mentally retarded were identified for chart review and telephone followup. Findings were: 1. Of 56 children of these families Probate Court involvement was recommended by the team for 46 (82%), and the court took jurisdiction in all cases when the team recommended it. 2. The average family received 10 community services in addition to public financial support and medical care. 3. In spite of intense professional involvement, only 8 (14%) of the children were able to remain in the care of the retarded parent, usually with extended family support. 4. The court terminated parental rights to 27 (48%) children who were subsequently adopted. 5. Other outcomes were: 4 (7%) were voluntarily given up for adoption; 2 (4%) died (1 by suicide, age 11 yrs; 1 beaten by mother's boyfriend, age 8 mos); 1 (2%) is in the custody of the non-retarded parent following divorce; and the remaining 14 (25%) are in temporary foster care. These findings suggest that when the parent of an abused or neglected child is significantly intellectually limited, the prognosis for greatly improved parenting is poor, even with intensive community services.

**106** COST OF MAINTAINING DEVELOPMENTALLY DISABLED AND NORMAL HIGH RISK INFANTS FOLLOWING DISCHARGE FROM A NEONATAL INTENSIVE CARE UNIT. Seetha Shankaran & Marsha Linver (Spon. by Ronald L. Poland), Dept. of Pediatrics, Wayne State University, Children's Hospital of Michigan, Detroit.

The cost of maintaining 34 developmentally disabled (DD) infants during the first 2 years after discharge from a neonatal intensive care unit was evaluated prospectively. All infants had neurologic sequelae and additional deficits, including visual impairment (10), hearing deficits (2), seizures (13) and speech impairment (12). Nineteen infants matched for age, birth weight, gestation, neonatal medical course and socio-economic status who had normal neurological and developmental examinations served as controls.

All costs are reported per infant per month following discharge. The total costs of outpatient care of the DD group was \$101.3 ±14.9 (mean ±SEM) while that of the control was 33.6±8.5. Although the costs for primary health care were similar in both groups (\$9.0±0.9 per DD infant and \$8.5±1 per control infant), the highest cost per service for the DD group was occupational-physical therapy at \$22.01±4.05 and developmental testing for the control group at \$9.72±4.46. Twenty-two DD infants were hospitalized on 68 occasions for shunt revision, seizure disorder, pneumonia and minor surgery. The cost per admission was \$3776±589, this compared to one hospitalization for a control infant at \$1110 for aseptic meningitis. The total costs (outpatient and inpatient) per DD infant per month was \$860.95±225 while that of the control infant was 36.04±8.9. Further observations on non-medical emotional and social costs are in progress.

**107** THE RELATIONSHIP BETWEEN COGNITIVE AND GROSS MOTOR DEVELOPMENT Bruce K. Shapiro, Frederick B. Palmer, Renee C. Wachtel, Alan Ross, Arnold J. Capute. The Johns Hopkins U. Med. Inst., The J. F. Kennedy Inst. Dept. of Peds., Baltimore.

The age of motor milestone achievement, collected in a prospective fashion during well baby examinations, was compared to the 3 year old Stanford Binet (SB) performance for 213 caucasian children. The population had 109 males and 104 females, was predominantly upper middle class (Hollingshead ±3 for 205), and included 4 prematures. Mean SB IQ was 114 ±13 with 32 children 100. Milestones included: rolls supine to prone (S to P), sits (alone), crawls and walks. Mean ages of attainment in months and standard deviations are tabled. Milestones were related to SB performance using linear correlation. Pearson's r values are shown. To determine whether significant relationships existed when IQ stratification (IQ<85, 85-100, 101-117, >117) was considered, milestones were regressed on SB groups. The t statistics refer to regression coefficients in this analysis.

	Rolls S to P	Sits	Crawls	Walks
Mean (SD)	4.8(1.3)	6.5(1.1)	8.0(1.8)	12.2(2.2)
correlation r	-.01	-.19**	-.14*	-.25*** **p<.01
regression t	.03	-2.03*	-2.06*	-3.01** ***p<.001
sample size n	202	209	206	212

Significant but modest correlations exist between the ages of motor achievement and SB performance. This also holds when stratifying by IQ subgroups. Brighter children have earlier ages of gross motor achievement; however, this relationship is not strong enough to clinically discern SB subgroups.

**108** NONCOMPLIANCE IN AN INFANT HOME MONITORING PROGRAM. Miriam Sherman, Victor Fornari, Alfred Krauss, Cornell University Med. Ctr. & Long Island Jewish Hosp.-Hillside Med. Ctr., Depts. Child Psychiatry, Pediatrics, New York, NY and New Hyde Park, NY.

Although an average rate of noncompliance of 54% has been reported in conjunction with other pediatric therapies, noncompliance has not previously been associated with infant home monitoring. We studied 24 consecutive infants placed on home apnea monitors because of near-miss sudden infant death (SIDS) episodes, subsequent siblings of SIDS victims, and apneic preterm infants at The New York Hospital-Cornell Medical Center. In 8 cases (33%) noncompliance was noted. The monitor was prematurely terminated in 5 cases, and was continued in use in 3 cases despite medical advice to the contrary. A semi-structured interview was administered to the parents of all 24 monitored infants. Discriminant analysis was performed to determine what variables were connected with noncompliance in this population. Socioeconomic status, severity of preceding illness, or diagnosis were not predictors of noncompliance. Noncompliance in home monitoring programs may be more significant than previously recognized. Clearer guidelines for both the use of the monitor and the physician's responsibility when noncompliance is an issue need to be established. Pediatric and psychiatric collaboration is crucial in order to deliver optimal care to these vulnerable infants and their families.