489 CONSEQUENCES OF COLONIZATION WITH GROUP B STREPTOCOCCI (GBS): INFECTION VS PREMATURITY AND/OR FETAL LOSS. WHICH RISK IS GREATER? Joan A. Regan, Jane O'Neill and L. Stanley James, Div. of Perinat. Med., Dept. of Ped., Coll. of Physicians and Surgeons, Columbia Univ., NY.

In a prospective study of 9,503 parturients during the past 47 months, 12.3% were colonized with GBS. 25 infants born to these mothers developed GBS disease (attack rate 2.6/1000 live births).

195 mothers delivered at < 32 weeks gestation. 664 mothers experienced premature membrane rupture (PROM). Colonization with GBS among these groups of parturients = 32% and 20% respectively.

The incidence of preterm labor at < 32 weeks gestation = 5.7% among women colonized with GBS in comparison to 1.7% among women known not to be colonized ($p < .005$). Similarly PROM occurred in 12.3% of colonized patients vs 6.8% of those not colonized ($p < .005$).

In addition to these observations we have noted 28% GBS colonization among products of spontaneous abortion serially cultured during the past 12 months.

These associations between events leading to premature termination of pregnancy and colonization with GBS when compared to the observed attack rate for GBS disease have led us to speculate that the magnitude of the threat the GBS poses to the newborn lies more in its role in the egress of prematurity than in its potential for infection.

490 ASPIRIN AND ACETAMINOPHEN LEVELS IN CHILDREN WITH REYES SYNDROME. G.C. Rodgers, L.B. Weiner, J.A. McMillan (spon. by W.H. Bergstrom). SUNY, Upstate Medical Center, Dept. of Pediatrics, Syracuse, New York.

The records of 61 pts. with Reyes Syndrome (RS) seen at the Upstate Medical Center during the past 8 years were reviewed. Measurements of serum salicylate and acetaminophen (APAP) concentrations were made at the time of admission in 37 and 21 pts. respectively. Measurable levels of salicylate were found in 28 pts. (76%) with a mean value of 5.5 mg/dl (range 0.2 mg/dl to 36 mg/dl). Salicylate levels are summarized in the following table according to presenting stage.

	Total #	# with measurable level	Mean level (mg/dl)
Stage I	22	6	4.3
Stage II	31	17	7.3
Stage III-IV	8	5	1.0

The mean levels in this table are not significantly different. Salicylate and APAP levels did not correlate with the degree of liver enzyme elevations, blood ammonia levels or phenobarbital half-life. Nine of 22 pts. who expired or had serious sequelae had admission salicylate levels measured. The mean level was 8.8 mg/dl. In 19 of 39 survivors without sequelae in whom the salicylate level was measured the mean level was 4.0 mg/dl ($p<.1$). In the 21 pts. in whom admission APAP values were determined, measurable levels were noted in 7 pts. (mean 11.4 µg/ml, range 2.2-40 µg/ml). The high prevalence of measurable salicylate levels suggests a possible relationship between salicylate ingestion and RS. These data also indicate a correlation between salicylate level and outcome.

491 ROTAVIRUS (RV) INFECTION AND ILLNESS IN PATIENTS IN A TERTIARY CARE NURSERY. Wm. J. Rodriguez, Hyun W. Kim, Carl D. Brandt, Anne W. Fletcher, Albert Z. Kapikian, Robt. M. Chanock & Robt. H. Parrott. Children's Hospital National Medical Ctr and NIH, Washington, DC.

Between November 1979 and March 1980, the stools of 183 nursery patients were studied for RV by electron microscopy (EM) and/or enzyme linked immunosorbent assay (ELISA). Two discrete periods of RV excretion were identified during the time when RV was prevalent in the community. 22% (22/100) of babies studied during the prevalence period shed RV in their stools. In experience paralleling that in Britain and Australia, our RV-infected infants had mild illness or no symptoms; vomiting occurred in only two. 41% (9/22) of RV positive patients were 6-17 days old, and six of them had loose, mucoid or watery stools (LMW). LMW stools were observed in 16/22 patients (73%) with RV infection and also in 73% (43/59) without RV infection. One of the outbreaks was traceable to the admission of an RV-infected infant. This infant and two others with RV infection presented with non specific signs of sepsis without diarrhea. Rapid diagnostic methods and infection control measures helped control the spread of RV. It seems likely that there is considerable RV infection in tertiary nurseries in the winter. In such nurseries, when RV is prevalent, we recommend the use of rapid methods of diagnosis, such as EM, particularly to screen community admissions for RV.

492 ENVIRONMENTAL CONTAMINANTS IN HUMAN MILK--THE BREAST MILK AND FORMULA PROJECT. Walter Rogan and Beth Gladen (spon. by Lorcan O'Tuama) National Institute of Environmental Health Sciences, Biometry Branch, Research Triangle Park, NC. In 1978 we began a prospective birth cohort study of children from 3 areas in NC in an attempt to identify morbidity attributable to persistent environmental chemicals present as maternal "body burden" or as contaminants of human milk. Over 700 of a proposed 900 children have been enrolled, with maximum follow-up of 31 months. Maternal and cord blood, placenta and colustrum have been collected at birth with periodic sampling of breast milk or formula thereafter. These have been analyzed for PCBs (polychlorinated biphenyls) and DDE (the primary metabolite of DDT) by GLC, and for total organic chlorine and bromine (rough, integral measures of most xenobiotics) by a new NMR method. About 950 samples of breast milk have been analyzed; almost all are positive, with values up to 15 ppm on a fat basis for PCB, and 14 ppm for DDE. A tight correlation (PCB:R=.69, $p<.0001$; DDE:R=.88, $p<.0001$) is observed over time; there is a gradual decrease over the first 6 months. PCB in cord blood is lower than in maternal blood, and many placentae have no detectable levels. PCBs and DDE do not account for even most of xenobiotic chlorine, and total organic chlorine shows more variability and less correlation than PCBs or DDE. Persistent halogenated hydrocarbons represent almost universal contaminants of human tissue; we plan to see whether quantitative measures of these contaminants can be related to prospectively gathered information on morbidity, and to follow the children for any long term effects.

493 DECREASING PERINATAL MORTALITY IN A LARGE URBAN CENTER. Warren Rosenfeld, Ramesh Jhaveri, Delfor Salazar, Raul Estrada and Hugh Evans, Department of Pediatrics, Jewish Hospital of Brooklyn (JHMCB), New York.

From 1974-79, JHMCB, located in Bedford-Stuyvesant, an inner city community, has experienced a significant decrease in perinatal mortality reflecting improvement in both fetal and neonatal outcome. During the 6yrs, the proportion of high risk obstetrical patients has increased while the proportion of low b.wt. patients remained stable. Improved mortality has been associated with a decreased proportion of forceps deliveries (low & mid) and inductions of labor. Improvements in the monitoring program, structural changes in the NICU, and increased staffing of the obstetrical unit and NICU also coincided with decreased mortality. The proportion of births, and of breech presentations, delivered by Cesearean section and the effects of the abortion program did not appear to influence mortality rates.

The decrease in neonatal mortality to levels below national averages was reflected by improvement of outcome in patients over a range of 751-2500gms. No improvement occurred in those with birth weight of less than 750gms.

RATE	1974	1975	1976	1977	1978	1979
NEONATAL MORTALITY	15	19	14	10	8*	5.9**
PERINATAL MORTALITY	34	30	29	21*	14.3**	9.7**

*$p < 0.05$, **$p < 0.001$ when compared to 1974

These results suggest that the influence of adverse socio-economic circumstances can be overcome and improved perinatal mortality is possible.

494 TOXOPLASMOSIS: MATERNAL AND PEDIATRIC FINDINGS IN 23,000 PREGNANCIES. John L. Sever, David L. Madden, Jonas H. Ellenberg, Nancy R. Tzan and Dorothy M. Edmonds. National Institutes of Health, Bethesda, Md.

We have studied approximately 23,000 pregnant women and their children from 14 institution located throughout the United States who participated in the Collaborative Perinatal Project. The children were followed for a period of 7 years. Serial serum specimens were available from the pregnant women and these were tested for antibody to toxoplasmosis using a micromodification of the indirect hemagglutination inhi-bition test (IHA). The patients with highest titers ($\geq$1024) or fourfold rises to $\geq$ 256 by the IHA method were also tested for IgM antibody using indirect fluorescent test (IFA). Among the women tested, 38.6% had detectable antibody and a total of 2.2% of the women showed significant increases in antibody or were in the highest titer ranges. Based on this latter group and the IgM IFA tests, a "High Risk" group of 42 patients was identified. Two of the children had "probable" congenital toxoplasmosis and there were 3 stillbirths. Three other children had abnormalities including prematurity, hypotonia, or short leg which may or may not be related to toxoplasmosis. We also studied the entire population for evidence of abnormal findings which could be corelated with maternal antibody findings using a computer analysis. A total of approximately 240 first year and 300 seven year specific physical and developmental categories were considered. The only outcome indicated to be possibly important was an observed increase in micro-cephaly which was two-fold (.55% versus .24%) among the patients in the higher titer ranges.