

## Inner City Toxicants, Child Growth and Development

*Endocrine-disrupting Chemicals in the Urban Built-Environment*

Funded by NIEHS, EPA, NCI, ATSDR

**COMMUNITY PARTNERS:** Little Sisters, Boriken Neighborhood Health, Settlement Health, Children's Aid Society, Mount Sinai and North General Pediatric Clinics

- EXPOSURES** .3 childhood and one maternal cohort  
.consistency of levels over time in children  
.relationships with reported product-use
- MATERNAL BMI BIRTH SIZE** .relationships to phthalate biomarkers  
.relationships to prenatal phthalate biomarkers
- 4-7 year-old BMI** .relationships to prenatal phthalate biomarkers

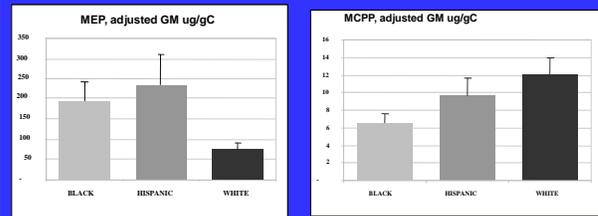
## HORMONALLY ACTIVE EXPOSURE BIOMARKERS in NYC RESIDENTS

Urinary phthalate metabolites in 3 populations

	MEP <sub>phth</sub>	MBu <sub>Phth</sub>	MBz <sub>Phth</sub>	MECPP	ug/L
382 Maternal (prenatal) 1998-2002	380*	36	22	35	
30 girls 6-8 yo 2004	100	50	22	111	
101 boys 6-8 yo 2004-7	152	68	48	123	
159/35 kids 2004-5	166	56	38	139	

\*Higher than NHANES females

## Adjusted Geometric Means of 2 Phthalate Urine Biomarkers by Race/ethnicity among 90 girls from 3 BCERC sites (EHP, January 2007)



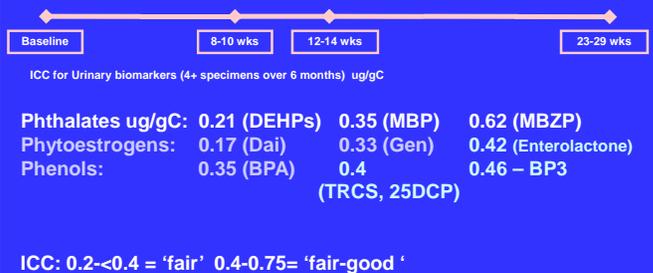
Patterns of phthalate metabolites by race vary for different agents

## Predictive Ability of the Product Use Questionnaire

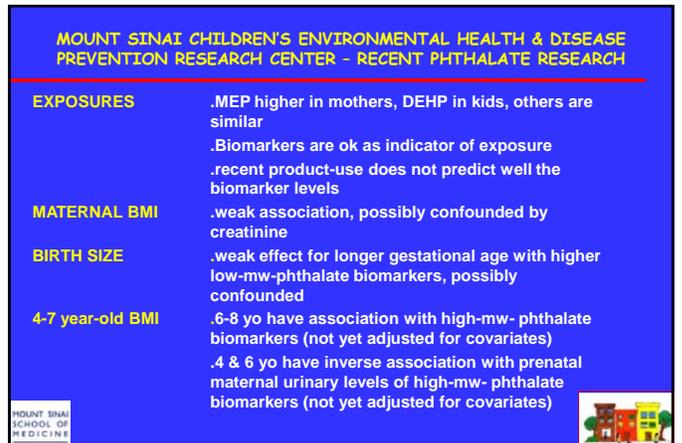
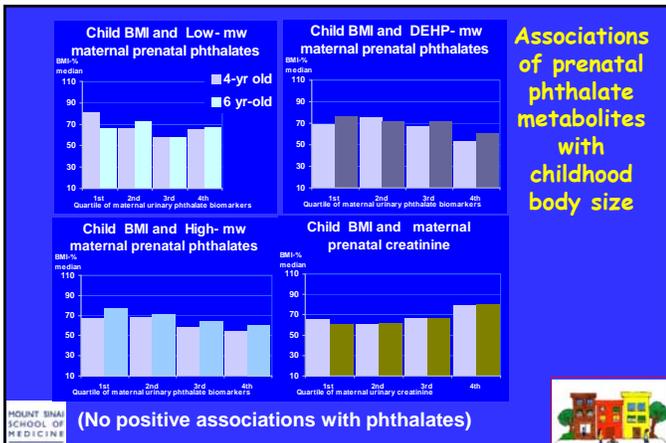
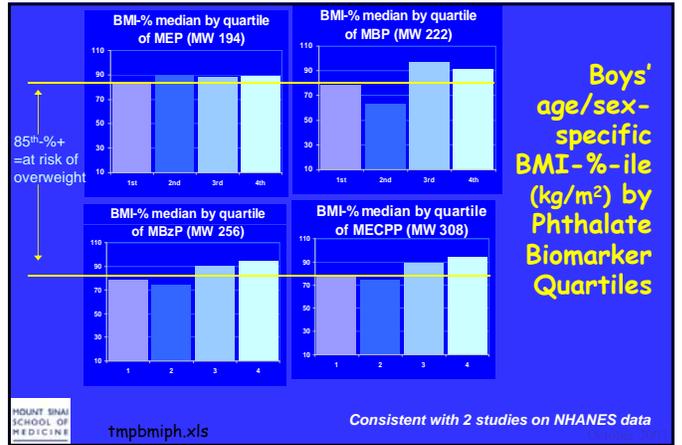
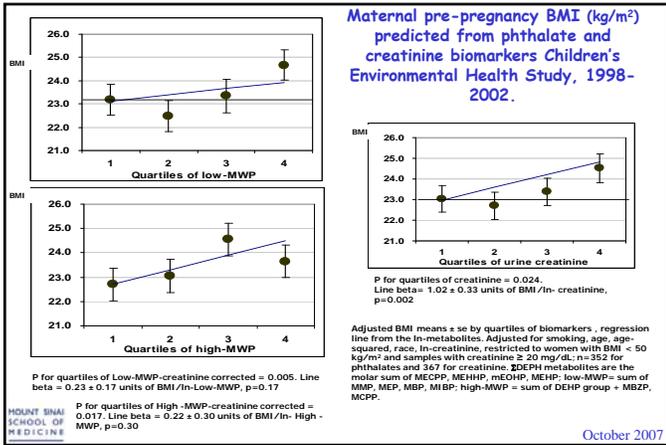
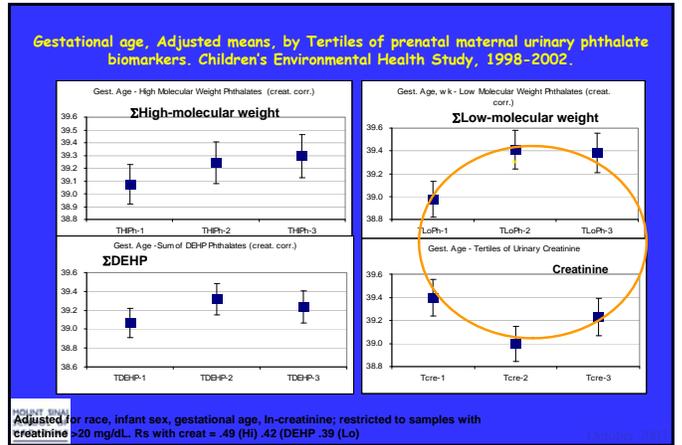
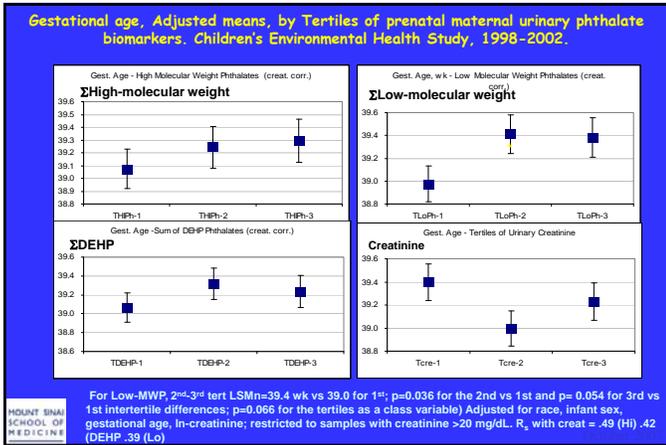
Relationships of urine biomarkers with responses from a 32-item questionnaire about products used in past 7 days

- \*BPA: - with use of drink containers (p= \*\*, wrong direction)
- \*BPA: no correlation with "foods that come in cans"
- \*BP3: + with use of sunscreen (p<.001)
- \*MEHHP, MEOHP: + with nail polish use (p<.1)
- \*MBP, MECPP + with hair gel (p<.1)
- \*MBP, MEHP + with shampoo (p<.1)
- \*MBP, MBzP + with conditioner (p<.1)

## Phthalate, Phenol, Phytoestrogen Temporality Data (NYC kids)



ICCs Based on 159 samples from 35 children over 6 months  
S. Teitelbaum, in press



**The Mount Sinai Center for Children's Environmental Health & Disease  
Prevention Research 1998-2009**

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