This newsletter is to thank the young women and their families who began the Growing Up Healthy Study between 2004 and 2007. You are one of more than 400 girls who enrolled at Mount Sinai in New York City when you were between the ages of 6 to 8. You were part of a national study that followed girls as they developed and matured. The scientific goal was to investigate how the environment might affect girls’ body size and the age at which they began puberty. Two other study sites enrolled girls in California and Cincinnati, Ohio. The total number of girls in the national study was 1,239!

We are pleased to tell you that you have now completed this phase of the study, which was supported by two grants from 2003-2015. But we are now working with all of the data you provided, to better understand chemicals, obesity, early maturation, asthma, and neighborhood factors related to development. We are also developing the next phase of the study. We will not be conducting interviews in 2015, but we will continue to be in touch with you throughout the year. Your continuing participation is invaluable, and we hope that you will remain part of the Growing Up Healthy Research Family.

In the following pages of this newsletter, we try to give you an update on what we have learned from all the yearly visits that you and your parents participated in. We asked you lots of questions and you had physical exams. And don’t forget that we took your measurements and sometimes collected samples of your urine and blood. Your participation helped us learn more about how the environment and the everyday things that you do may be affecting girls as they enter puberty.

Here are Some of the Things We Learned

What We Found In Your Urine

We measured 19 chemicals in the urine samples you provided. Some of the chemicals were higher in New York City girls compared to girls from Ohio and California when compared to national averages. Here are some highlights of what we found:

- Girls with a larger body size and waist measurements were more likely to have high levels of phthalates in their urine. Phthalates are used to make plastics flexible and to keep the color and scent in personal care products. Phthalates can be found as ingredients in perfumes, nail polish, vinyl floors, calendula, food containers, soap, shampoo, toys, car seat covers, carpets, and plastic bags.

- There are two possibilities related to these findings:
  1. These chemicals may be contributing to over-weight and obesity.
  2. Girls who are overweight are more exposed to these chemicals through their food, water and from contact with many of the products listed above.

- Girls in the Growing Up Healthy Study had higher levels of exposure to phthalates than national averages for girls of the same ages. The graph below compares exposure to one of the ten phthalates that we measured. This phthalate is often included as an ingredient in products that have fragrance like perfume, shampoo and moisturizers.

- Exposure levels of a chemical (2,5-dichlorophenol) that is known to be an ingredient in mothballs and toilet bowl sanitizers were higher among Growing Up Healthy girls than national averages for girls of the same ages. The graph below compares exposure to one of the ten phthalates that we measured. This phthalate is often included as an ingredient in products that have fragrance like perfume, shampoo and moisturizers.

- Black girls from all three study sites were more likely than Hispanic and White girls to drink breast milk.

- By the end of 2014, 70% of the girls in the Growing Up Healthy Study in New York City had begun their first menstrual period (menstruation.) The average age of menstruation was 12. This is earlier than your grandmothers and great grandmothers.

- Other chemicals may be contributing to over-weight and obesity. These chemicals include phthalates and bisphenol A.

- Higher exposure in young girls to some common chemicals, such as phthalates and.perhaps that were measured in the Growing Up Healthy Study, may affect early breast development and disrupt hormones in the body. This may put girls at risk for a number of health issues later in life, such as cancer and diabetes.

- In the Study, we measured 8 chemicals in the urine samples you provided. Some of the chemicals were higher in New York City girls compared to girls from Ohio and California when compared to national averages. Here are some highlights of what we found:

- Girls are more likely to start developing breasts by age 7 or 8, this is younger than ages found in studies that were conducted 20 years earlier.

- Earlier development was more likely if girls were overweight and had a larger body size for their age.

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- Girls who are overweight are more exposed to these chemicals through their food, water and from contact with many of the products listed above.

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