

Hasbro receives \$1.8M from NIH to study environmental influences on child health

PROVIDENCE – Hasbro Children’s Hospital, the pediatric division of Rhode Island Hospital, has been awarded a \$1.8 million grant from the National Institutes of Health (NIH) as part of a national research project to study the effects of environmental exposures on the health and development of children. The grant is tied to a NIH \$157-million, seven-year initiative called Environmental influences on Child Health Outcomes (ECHO).

The ECHO program will investigate how exposure to a range of environmental factors in early development – from conception through early childhood – influences the health of children and adolescents.

The Hasbro Children’s Hospital research will be led by **PHYLLIS DENNERY, MD**, pediatrician-in-chief at Hasbro Children’s Hospital. Dennery will be joined on the initiative

by **THOMAS CHUN, MD**, a pediatric emergency medicine physician at Hasbro Children’s Hospital, and **ABBOT LAPTOOK, MD**, medical director of the Neonatal Intensive Care Unit at Women & Infants Hospital.

ECHO studies will focus on four key pediatric outcomes: upper and lower airway; obesity; pre-, peri- and postnatal outcomes; and neurodevelopment.

“We know that pediatric health issues can impact a child for the rest of his or her life,” said Dennery. “But, we also know that early intervention can drastically improve the course of a child’s long-term health and even avoid negative outcomes altogether. So, better understanding of how maternal and environmental influences impact diseases such as autism, obesity and asthma amongst others, will be very important to the health of Rhode Island children and children across the country.”

Researchers will look at a broad range of potentially harmful exposures, from air pollution and chemicals in neighborhoods, to societal factors such as stress, to individual behaviors like sleep and diet. Some exposures may act through any number of biological processes, for example, changes in the expression of genes or development of the immune system.

A critical component of ECHO will be to use the NIH-funded Institutional Development Awards (IDeA) program to build state-of-the-art pediatric clinical research networks in rural and medically underserved areas, so that children from these communities can participate in clinical trials. Hasbro Children’s Hospital is one of 17 of these sites, with a goal of enrolling more than 50,000 children nationally. ❖

Research Team Studies Use of Smartphone App to Teach Sexual Health to Adolescent Girls

New research published in The Journal of Pediatric and Adolescent Gynecology

PROVIDENCE – A research team led by **LYNAE M. BRAYBOY, MD**, reproductive endocrinologist in the Division of Reproductive Endocrinology and Infertility at Women & Infants Hospital of Rhode Island and at The Warren Alpert Medical School of Brown University, found that a smartphone application vs. traditional methods can potentially connect teenage girls to more information about sexual health. The research, entitled “Girl Talk: A Smartphone Application to Teach Sexual Health Education to Adolescent Girls,” was recently published in *The Journal of Pediatric and Adolescent Gynecology*. The article was co-authored by **CAROL WHEELER, MD**, also of Women & Infants/Brown University.

“We found that a smartphone application is a feasible sexual health educational tool that is appealing to teenage girls,” said Dr. Brayboy. “In fact, our participants recommended the application as a valuable resource to learn about comprehensive sexual health.”

For their research, Dr. Brayboy and her team recruited 39 girls ages 12 to 17 from Rhode Island to participate in a two-phase prospective study. In phase one, 22 girls assessed a sexual health questionnaire in focus groups. In phase two,



Lynae M. Brayboy, MD



Carol Wheeler, MD

17 girls with iPhones used the Girl Talk application for two weeks and answered the revised sexual health questionnaire and interview questions before and after the application use. The participants’ responses to the sexual health questionnaire, interviews and time viewing the application were used to determine feasibility and desirability of Girl Talk.

Dr. Brayboy explained that Girl Talk was used on average for 48 minutes during participants’ free time on weekends, generally in 10 to 15 minute intervals. The reported usefulness of Girl Talk as a sexual health application increased significantly from baseline (35.3%) to follow-up (94.1%). “More than three-quarters of the participants were exposed to sexual health education before using Girl Talk, but 94.1% of participants stated that the application provided new and/or more detailed information than health classes.”

Dr. Brayboy and her team will be seeking opportunities to perform additional trials to determine if Girl Talk improves sexual health knowledge, increases contraception usage and decreases sexually transmitted infections and unplanned pregnancy. ❖